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CATALOGUE

OF

HYMENOPTEROUS INSECTS

IN

THE COLLECTION

OF THE

BRITISH MUSEUM.

BY

FREDERICK SMITH, M.E.S.

PART IV.

SPHEGIDÆ, LARRIDÆ, AND CRABRONIDÆ.

LONDON:
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PREFACE.

The object of the present Catalogue is to give a complete list of all the genera and species of Fossorial Hymenoptera which have been described in works, and a description of those in the British Museum which appear to have been hitherto overlooked.

The letters B.M. in the margin show the species now contained in the British Museum, and their absence indicates those which are desiderata, and therefore desirable to be procured for the Collection.

JOHN EDWARD GRAY.

12th June, 1856.

CATALOGUE

OF

HYMENOPTERA.

Div. II. ACULEATA.

Tribe 2. FOSSORES, *Latr.*

Fam. 3. SPHEGIDÆ.

The posterior margin of the *prothorax* not prolonged backwards to the insertion of the wings, anteriorly produced into a neck. *Abdomen* petiolated.

Genus 1. AMMOPHILA.

Sphex, pt., *Linn. Faun. Suec.* 411 (1761).
Pompilus, pt., *Fabr. Ent. Syst. Supp.* 246 (1798).
Pepsis, pt., *Fabr. Syst. Piez.* 207 (1804).
Ammophila, *Kirby, Trans. Linn. Soc.* iv. 195 (1804).
Psammophila, *Dahlb. Hym. Europ.* i. 16 (1843).

1. Ammophila sabulosa. B.M.

Sphex sabulosa, *Linn. Faun. Suec.* no. 1648; *Syst. Nat.* i. 941. 1. et *Cab. Mus. Linn. Soc.*
Scop. Ent. Carn. 770. f. 770.
Frisch, Ins. ii. t. 1. f. 6, 7, 8.
De Geer, Ins. ii. 822. t. 28. f. 7.
Fabr. Syst. Ent. p. 346. 1.
Schrank, Ins. Aust. 768.
Rossi, Faun. Etrus. ii. 60. 808.

Sphex sabulosa, *Christ. Hym.* p. 311. t. 31. f. 2.
Panz. Faun. Germ. 65. 12.
Latr. Hist. Nat. xiii. 292. 1.
Spin. Ins. Lig. i. 71. 1.
Jurine, Hym. i. 128.
Zett. Ins. Lapp. 435. 1.
Ammophila vulgaris, *Kirby, Trans. Linn. Soc.* iv. 195. 1.
Ammophila sabulosa, *Latr. Nouv. Dict.* ed. 2. i. 450; *Gen. Ins.* iv. 54.
Van d. Lind. Obs. i. 85. 2.
Brullé, Hist. Nat. Il. Canar. iii. 61.
Shuck. Foss. Hym. p. 75. 1.
Dahlb. Hym. Europ. i. 9, 10.
St. Farg. Hym. iii. 376. 17.
Wesm. Hym. Foss. Belg. 69. 1.

Hab. Britain; France; Germany; Italy; Sweden; Lapland; Algeria.

2. Ammophila viatica. B.M.

Sphex viatica, *Linn. Faun. Suec.* no. 1651; *Syst. Nat.* i. 943. 15, et *Cab. Mus. Linn. Soc.*
De Geer, Ins. ii. 152. t. 28. f. 16.
Sphex hirsuta, *Scop. Ent. Carn.* p. 772. f. 772.
Schrank, Ins. Aust. p. 380. 769.
Sphex arenaria, *Fabr. Mantis.* i. 273. 1.
Rossi, Faun. Etrus. ii. 60. 809.
Panz. Faun. Germ. 65. 13.
Zett. Ins. Lapp. p. 435. 2.
Ammophila hirsuta, *Kirby, Trans. Linn. Soc.* iv. 195. 4.
Van d. Lind. Obs. pt. 1. 89. 6.
Shuck. Foss. Hym. p. 77. 2.
Brullé, Expéd. Sc. Morée, iii. 369. 812.
St. Farg. Hym. iii. 364. 1.
Lucas, Explo. Sc. Algér. iii. 274. 1.
Pepsis arenaria, *Fabr. Syst. Piez.* p. 207. 1.
Illig. Ed. Faun. Etrus. ii. 92. 809.
Ammophila argentea, *Kirby, Trans. Linn. Soc.* iv. 195. 4 ♂.
Psammophila viatica, *Dahlb. Hym. Europ.* i. 18. 12.
Wesm. Hym. Foss. Belg. 69. 1.
Ammophila viatica, *Smith, Cat. Brit. Hym.* 16. 2.

Hab. Britain; France; Italy; Germany; Denmark.

3. Ammophila lutaria. B.M.

Sphex lutaria, *Fabr. Mantis.* i. 273. 3 ♂.
Gmel. Ed. Syst. Nat. i. pt. 5. p. 2724. 24.

Sphex lutaria, *Vill. Ent.* iii. 225. 17.
Jurine, Hym. p. 128.
Pepsis lutaria, *Fabr. Syst. Piez.* p. 208. 2.
Ammophila affinis, *Kirby, Linn. Trans.* iv. 195. 2 ♂ ♀.
Van d. Lind. Obs. i. 87. 5.
Shuck. Foss. Hym. p. 16. 6.
St. Farg. Hym. iii. 369. 8.
Lucas, Explo. Sc. Algér. iii. 274.
Psammophila affinis, *Dahlb. Hym. Europ.* i. 16. 11.
Wesm. Hym. Foss. Belg. 70. 2.

Hab. Britain; France; Germany; North Africa (Oran).

4. Ammophila holosericea. B.M.

Sphex holosericea, *Fabr. Ent. Syst.* ii. 205. 27; *Syst. Piez.* p. 207. 4.
Illig. Ed. Faun. Etrus. ii. 90. 808.
Coqueb. Illust. ii. 50. t. 12. f. 1.
Ammophila holosericea, *Germ. Reise Dalm.* p. 260. 345.
Van d. Lind. Obs. i. 86. 3.
Dahlb. Hym. Europ. i. 9.
St. Farg. Hym. iii. 378. 19.
Lucas, Explo. Sc. Algér. iii. 275.

Hab. Barbary; Dalmatia; France; Germany; Africa (Oran).

5. Ammophila armata.

Sphex sabulosa, *Rossi, Faun. Etrus.* ii. 60. 808; *Faun. Etrus. Mantis.* ii. *Append.* t. 6. f. *a.* mas, *b.* fem.
Sphex armata, *Illig. Ed. Faun. Etrus.* ii. 91.
Ammophila armata, *Latr. Gen. Cr. et Ins.* iv. 54.
Van d. Lind. Obs. i. 85. 1.
St. Farg. Hym. iii. 371. 11. t. 30. f. 4.
Léon Dufour, Ann. Soc. Ent. Fr. vii. 291 (1838).

Hab. South of France; Italy.

6. Ammophila dives. B.M.

Ammophila dives, *Brullé, Expéd. Sc. Morée*, iii. 369. 813, *Atlas*, t. 50. f. 10.

Hab. The Morea.

7. Ammophila Klugii.

Ammophila Klugii, *St. Farg. Hym.* iii. 367. 5.

Hab. Portugal.

8. Ammophila Heydeni.

Psammophila Heydeni, *Dahlb. Hym. Europ.* i. 430.

Hab. Central Europe.

9. Ammophila elongata.

Ammophila elongata, *Fisch. de Waldh. Mag. Zool.* (*Guér.*) 1843.

Hab. Russia.

10. Ammophila nitida.

Ammophila nitida, *Fisch. de Waldh. Mag. Zool.* (*Guér.*) 1843.

Hab. Russia.

11. Ammophila Maderæ. B.M.

Psammophila Maderæ, *Dahlb. Hym. Europ.* i. 21 & 432.
Psammophila senilis, *Dahlb. Hym. Europ.* i. 21 & 432.

Hab. Madeira; South of Europe.

12. Ammophila terminata. B.M.

Ammophila apicalis, *Brullé, Hist. Nat. Il. Canar.* iii. pt. 2. p. 92. 62 (nec *Guér.*) 1832.

Hab. Canary Islands.

13. Ammophila nigra.

Ammophila nigra, *Brullé, Hist. Nat. Il. Canar.* ii. pt. 2. p. 92. 64.

Hab. Canary Islands.

14. Ammophila concolor.

Ammophila concolor, *Brullé, Hist. Nat. Il. Canar.* iii. pt. 2. p. 92. 63.

Hab. Canary Islands.

15. Ammophila fera.

Ammophila fera, *St. Farg. Hym.* iii. 365. 2.

Hab. Roumelia.

16. Ammophila melanopus.

Ammophila melanopus, *Lucas, Explo. Sc. Algér.* iii. 276, 277. t. 14. f. 8.

Hab. Algeria.

17. Ammophila nasuta. B.M.

Ammophila nasuta, *St. Farg. Hym.* iii. 380. 20.
Léon Dufour, Ann. Soc. Ent. Fr. vii. 292.
Lucas, Explo. Sc. Algér. iii. 375. t. 14. f. 7.

Hab. Algeria (Oran); Portugal.

18. Ammophila argentea. B.M.

Ammophila argentea, *Brullé, Hist. Nat. Il. Canar.* iii. 65.
Ammophila argentata, *St. Farg. Hym.* iii. 366. 3.? t. 30. f. 2.
Lucas, Explo. Sc. Algér. iii. 274. t. 14. f. 6.

Hab. Canary Islands; Algeria (Oran).

19. Ammophila festiva. B.M.

Female. Length 12 lines.—Black: head and thorax clothed with silvery pile, dense and brilliant on the face and sides of the thorax, as well as on the collar; a broad silver stripe passes over the tegulæ and unites with a similar stripe which runs from the collar to the middle of the disk; the anterior legs and intermediate femora and tibiæ ferruginous; the femora fuscous above; the calcaria pale rufo-testaceous; wings hyaline, the nervures and margins of the tegulæ ferruginous. Abdomen: thinly covered with silvery pile, the petiole and first segment of the abdomen black at the base; the apex, the second and third segments above and the entire abdomen beneath, ferruginous.

Hab. Tunis.

20. Ammophila rubripes.

Ammophila rubripes, *Spin. Ann. Soc. Ent. Fr.* vii. 465. 19 (1838)

Hab. Egypt.

21. Ammophila ebenina.

Ammophila ebenina, *Spin. Ann. Soc. Ent. Fr.* vii. 464. 18.
St. Farg. Hym. iii. 366. 4.

Hab. Egypt.

22. Ammophila incana. B.M.

Ammophila incana, *Dahlb. Hym. Europ.* i. 21. 423.

Hab. Africa.

23. Ammophila canescens.

Ammophila canescens, *Dahlb. Hym. Europ.* i. 21 & 432.

Hab. Africa.

24. Ammophila ferrugineipes. B.M.

Ammophila ferrugineipes, *St. Farg. Hym.* iii. 383. 24.

Hab. Cape of Good Hope; Port Natal; Sierra Leone; the Gambia.

Specimens of this species, received from Port Natal and Sierra Leone, have the petiole black above, as well as the posterior femora, the prothorax being entirely red, smooth and shining. Of an extensive series from the Gambia, some have the sides of the thorax more or less ferruginous; others have the thorax black, with the exception of a red spot on the collar; but several have the thorax entirely black, and the tarsi, as well as the posterior legs, fuscous.

25. Ammophila rugicollis.

Ammophila rugicollis, *St. Farg. Hym.* iii. 373. 14.

Hab. Cape of Good Hope.

26. Ammophila rubiginosa.

Ammophila rubiginosa, *St. Farg. Hym.* iii. 372. 12.

Hab. Cape of Good Hope. (Coll. F. Smith.)

27. Ammophila Bonæ-Spei. B.M.

Ammophila Bonæ-Spei, *St. Farg. Hym.* iii. 382. 23.
Lucas, Explo. Sc. Algér. iii. 276.

Hab. Cape of Good Hope.

28. Ammophila tenuis. B.M.

Sphex tenuis, *Pal. de Beauv. Ins.* p. 48. t. 7. f. 2.

Hab. Sierra Leone.

29. Ammophila Ludovicus.

Female. Length 15 lines.—Black: the clypeus anteriorly and the mandibles ferruginous, the latter black at their apex; the face thinly covered with silvery pile, and having a number of short, scattered, stiff black hairs. Thorax rugose; the mesothorax posteriorly, the scutellum and post-scutellum longitudinally striated; the enclosed portion of the metathorax coarsely rugose, but having on each side a small space transversely striated; the tubercles and a spot on each side of the metathorax, at the insertion of the petiole, covered with silvery pile; the

wings deep fuscous, adorned with brilliant purple iridescence; the legs and the abdomen black, the latter thinly covered with fine grey silky pile.

Hab. Port Natal. (Coll. W. W. Saunders, Esq.)

30. Ammophila insignis.

Female. Length 14 lines.—Head black, with the clypeus, mandibles and antennæ ferruginous; the tips of the mandibles black, and four or five of the apical joints of the flagellum fuscous. Thorax ferruginous, the mesothorax in the middle above, and a stain at the sides and beneath fuscous; the metathorax fuscous above; the mesothorax transversely striated; the entire thorax clothed with very short pale golden pubescence, which is dense on the metathorax and on the sides, concealing the sculpture; legs red, the posterior trochanters above, and the femora at their base above having a fuscous line; wings hyaline, their nervures and tegulæ red. The abdomen beneath, the petiole and basal segment red, the following segments black above.

Male. Length 13 lines.—Black; the clypeus much produced, its apex emarginate, and having a longitudinal elevated carina down the middle; the face clothed with pale golden pubescence. Thorax black; wings as in the other sex; the legs red; the tarsi, a stripe on the intermediate femora above, the posterior coxæ, trochanters and femora, fuscous. Abdomen: the petiole fuscous above; otherwise as in the other sex.

Hab. Africa (the Gambia). (Coll. W. W. Saunders, Esq.)

31. Ammophila erythropus.

Ammophila rufipes, *St. Farg. Hym.* iii. 367. 5, nec *Guér.*

Hab. Senegal; Gambia. (Coll. F. Smith.)

Specimens from the Gambia have the mandibles, anterior margin of the clypeus, and three basal joints of the antennæ, ferruginous.

32. Ammophila cyanipennis. B.M.

Ammophila cyanipennis, *St. Farg. Hym.* iii. 370. 9.

Hab. Senegal.

33. Ammophila Beniniensis. B.M.

Sphex Beniniensis, *Pal. de Beauv. Ins.* p. 48. t. 7. f. 1.

Hab. West Africa (Benin); Sierra Leone; Port Natal.

34. Ammophila clavus.

Sphex clavus, *Fabr. Ent. Syst.* ii. 205. 26; *Syst. Piez.* 206. 3.

Hab. New Holland. (Banksian Collection, Mus. Linn. Soc.)

35. Ammophila suspiciosa. B.M.

Female. Length 7–8 lines.—Black: the face densely covered with silvery pile; the head and thorax thinly clothed with long silvery-white pubescence; the pro- and mesothorax strongly punctured, the metathorax rugose; the wings hyaline, with a faint cloud at their apical margins, the nervures ferruginous; the legs have a thin silvery pile. Abdomen with the petiole, the base of the first segment, the apical margin of the third and the following segments entirely black.

The male only differs in being smaller and more slender in form.

Hab. Australia (Swan River; Hunter River; North-west Coast).

The only difference between this species and *A. argentata* consists in the coloration of the abdomen; probably it is a mere variety.

36. Ammophila instabilis. B.M.

Female. Length 10 lines.—Black: the scape, two basal joints of the antennæ, and the mandibles ferruginous; the base and tips of the latter black; the face thinly covered with silvery pile. Thorax: the prothorax, and mesothorax before the insertion of the wings, transversely striated; the posterior portion of the mesothorax is obliquely striated inwardly, the scutellum and post-scutellum longitudinally striated, and the metathorax transversely so; the collar on each side, the tubercles, a spot beneath the wings, the metathorax, scutellum, post-scutellum and legs, ferruginous; the wings flavo-hyaline, the nervures and tegulæ pale ferruginous. Abdomen: the petiole, basal segment of the abdomen and basal half of the following segment ferruginous; the rest of the abdomen blue-black, and a black spot at the base of the second joint of the petiole.

Hab. Australia (Swan River; Port Essington).

The colouring of the metathorax is very inconstant in this species; in some examples the sides only of the metathorax are ferruginous, in others it is entirely black, and the spot beneath the wings, the scutellum and post-scutellum are likewise black: varieties also occur between these extremes.

37. Ammophila basalis. B.M.

Female. Length 7½–8½ lines.—Black: the head smooth,

shining, and thinly covered with fine sericeous pile; on the clypeus it is dense and silvery; the mandibles and scape ferruginous, the former black at their tips, the latter fuscous above. Thorax: the pro- and mesothorax transversely striated, the latter has a longitudinal impressed central line; the enclosed portion of the metathorax evenly and obliquely striated; the striation irregular beyond; the tubercles, apex of the metathorax, and the coxæ covered with silvery pile; the legs ferruginous, the coxæ, trochanters above and the apical joints of the tarsi fuscous: sometimes the coxæ are black; the wings hyaline, their apical margins faintly clouded, the nervures ferruginous; the second transverso-cubital nervure geniculated, sometimes having a short appendage at the angle of the geniculation. Abdomen: blue-green, with the two basal segments ferruginous, the extreme base of the second joint of the petiole black, the apical margin of the second segment blue-green.

Hab. India (N. India; Punjaub).

38. Ammophila nigripes. B.M.

Male. Length 7 lines.—Black: the face clothed with silvery pile; the cheeks and sides of the thorax thinly covered with silvery-white pubescence; the vertex smooth and shining; the entire thorax transversely striated above; the scutellum and post-scutellum longitudinally striated; wings subhyaline, the nervures and tegulæ pale ferruginous. The second joint of the petiole beneath, and the first segment of the abdomen ferruginous; the apical margin of the latter and the following segments blue, covered above with silvery pile.

Hab. Madras.

39. Ammophila lævigata. B.M.

Female. Length 7½ lines.—Black: the face densely covered with silvery pile; the head, pro- and mesothorax smooth and shining, the latter having only a few delicate punctures; the enclosed portion of the metathorax rugose, its sides striated; the sides of the thorax, the coxæ and trochanters thinly covered with silvery pile; the anterior and intermediate femora and tibiæ ferruginous; the posterior femora and base of the tibiæ ferruginous, with a black stripe above; one or two of the basal joints of the anterior and intermediate tarsi ferruginous. Abdomen: the petiole and first segment of the abdomen ferruginous, with usually an uninterrupted black stripe above, which is occasionally more or less abbreviated; the rest of the abdomen black.

Hab. Madras; Guzerat.

40. Ammophila dimidiata. B.M.

Female. Length 11 lines.—Head and thorax black; the scape, five or six of the basal joints of the flagellum, the clypeus in the middle, and the mandibles ferruginous; the latter black at their tips. The pro- and mesothorax above and the scutellum ferruginous and transversely striated; the metathorax rugose, the sides of the enclosed space striated; on each side of the enclosure, one or two minute ferruginous spots; these are sometimes obsolete; wings yellow, their apical margins faintly clouded, a fuscous spot at the apex of the marginal cell; legs and tegulæ ferruginous, the coxæ more or less fuscous or black at their base. Abdomen bright blue, the petiole ferruginous, with a fuscous spot at the base of the second joint.

Hab. India (Bombay; Madras; N. Bengal).

41. Ammophila erythrocephala. B.M.

Sphex erythrocephala, *Fabr. Ent. Syst.* ii. 204. 23.
Pelopœus erythrocephalus, *Fabr. Syst. Piez.* p. 203. 2; *Cab. Banks. Mus. Linn. Soc.*
Ammophila erythrocephala, *St. Farg. Hym.* iii. 385. 26.

Hab. India (Punjaub). (Coll. Gen. Hearsey.)

42. Ammophila elegans. B.M.

Female. Length 10 lines.—Black: the head and thorax densely clothed with silvery pile; the scape in front, and the basal half of the mandibles ferruginous. The metathorax transversely striated; the wings hyaline, the nervures rufo-fuscous; the tegulæ and legs ferruginous; the coxæ, posterior trochanters, and the anterior and intermediate pairs above, black; the posterior femora black towards their base above; the first joint of the petiole, and the base of the second joint black; the rest of the abdomen ferruginous, the apical margins of the segments being pale; the third segment has a fuscous spot in the middle of its base.

Male. Length 9 lines.—This sex closely resembles the female, differing only in having several fuscous spots down the middle of the abdomen.

Var. The tarsi fuscous, sometimes only the anterior and intermediate pairs.

Hab. Northern India (Punjaub).

The male differs in having the petiole almost entirely red, and in all the specimens examined, merely a fuscous spot at

the base of the second joint of the petiole; the abdomen has only a dark stain on the sixth segment.

43. Ammophila atripes. B.M.

Ammophila atripes, *Smith, Ann. & Mag. Nat. Hist.* ser. 2. ix. 46 (1852).

Hab. India (Khandala); Sumatra; China (Shanghai).

This species is frequently more highly coloured than the specimens described from Khandala, the first segment of the abdomen being red, with merely the base of the second joint black; the three basal joints of the tarsi are also ferruginous; the wings hyaline, and yellowish towards their base.

44. Ammophila similliма. B.M.

Female. Length 11 lines.—Black: the face densely covered with silvery pile; the scape ferruginous, slightly fuscous above. Thorax: the tubercles and apex of the metathorax covered with silvery pile; the pro- and metathorax transversely deeply striate; the scutellum and post-scutellum longitudinally striate; the metathorax rugose, the sides of the enclosed space obliquely striated; the tibiæ and femora ferruginous, the intermediate and posterior femora having a black stripe above, which sometimes extends from their base to their apex; one or two of the basal joints of the anterior and intermediate tarsi ferruginous or fusco-ferruginous; the wings yellowish, their nervures black. Abdomen: the second joint of the petiole ferruginous towards its apex; the abdomen blue.

Hab. China (Hong Kong).

This species closely resembles *A. atripes*, of which it may prove to be an extreme variety.

45. Ammophila Smithii.

Ammophila Smithii, *Baly, MSS.*

Female. Length 10½ lines.—Black: the head and thorax covered with silvery pile, which is very dense on the face, cheeks, thorax beneath, the coxæ, and sides of the metathorax; the scape, anterior margin of the clypeus and the mandibles ferruginous, the latter black at their tips; the legs red, the intermediate and posterior tarsi fusco-ferruginous; wings hyaline, the tegulæ and nervures ferruginous. The first joint of the petiole fusco-ferruginous, the second with a black spot at its base above: the abdomen red, the fourth segment having a large black spot

in the centre of its apex, and the fifth and sixth segments being entirely black.

Hab. India. (Coll. J. S. Baly, Esq.)

46. Ammophila punctata. B.M.

Female. Length 8 lines.—Black: the face covered with silvery pile, the cheeks and sides of the thorax have a thin long white pubescence; the head, pro- and metathorax, scutellum and post-scutellum strongly punctured; the metathorax transversely rugose, and having a central longitudinal carina; its extreme apex, the sides of the thorax, and the tubercles densely clothed with silvery pile; the collar has a minute tubercle in the middle; the wings hyaline and iridescent, their apical margins faintly clouded. Abdomen: the second joint of the petiole, except its extreme base, and the first and second segments of the abdomen ferruginous.

Hab. Northern India.

47. Ammophila vagabunda. B.M.

Female. Length 9 lines.—Black: the face has a few scattered large punctures interspersed with very fine ones. The prothorax transversely rugose anteriorly and punctured posteriorly, and having an abbreviated impressed line at its hinder margin; the mesothorax has a longitudinal central impressed line, and is strongly punctured, the punctures becoming confluent, and forming irregular striæ at the sides; the scutellum longitudinally rugose; the enclosed portion of the metathorax obliquely rugose-striate, the sides of the thorax and also beneath rugose; the wings subhyaline, slightly iridescent, and faintly clouded at their apical margins. Abdomen: the second joint of the petiole and first segment of the abdomen ferruginous, the base of the former black; the apical segments of a blue-black.

Hab. North China (Tcin-tung; Foo-chou-foo); Sumatra; Northern India.

48. Ammophila pulchella. B.M.

Male. Length 8½–10 lines.—Black: the face covered with silvery pile; the pro- and metathorax transversely striated; the scutellum and post-scutellum longitudinally striated, the metathorax rugose; the wings flavo-hyaline, and having a faint cloud on their apical margins, the nervures fusco-ferruginous; the underside of the second joint of the abdomen ferruginous; the abdomen blue, and thinly covered with cinereous pile.

Hab. Hong Kong; North China (Shanghai).

This is probably the male of *A. simillima*.

49. Ammophila opulenta. B.M.

Ammophila opulenta, *Guér. Voy. Coq. Zool.* pt. 2. p. 261.

Hab. Para; Rio.

Specimens received from Rio differ somewhat in sculpture from those of Para; the mesothorax has a deep longitudinal impressed line, and the metathorax is much more finely striated, but it has not been considered more than a local variety.

50. Ammophila eximia. B.M.

Ammophila eximia, *St. Farg. Hym.* iii. 373. 13.

Hab. Brazil.

51. Ammophila tarsata.

Ammophila urnaria, *St. Farg. Hym.* iii. 381. 22 (nec *Dahlb.*).

Hab. Brazil.

52. Ammophila moneta.

Female. Length 10 lines.—Head, thorax and legs black; the face covered with dense pale golden pubescence; the clypeus truncate, and having a few scattered punctures. Thorax: the tubercles, an oblong stripe beneath the wings, a spot on each side at the base of the metathorax, and another on each side at the insertion of the petiole, covered with pale golden pubescence; the enclosed portion of the metathorax obliquely striated; the mesothorax transversely rugose, the scutellum longitudinally striated; wings fusco-hyaline. Abdomen blue, the petiole black.

The male resembles the female, but has the clypeus produced and deeply notched at the apex.

Hab. Brazil. (Coll. F. Smith.)

53. Ammophila fragilis. B.M.

Female. Length 8–9 lines.—Black: the face and tubercles covered with pale golden sericeous pubescence; an elongate oblique stripe beneath the wings, a spot of golden pubescence on each side of the metathorax at its base, and another at its apex; the pro- and mesothorax have an elongate central channel, and another on each side over the tegulæ; the scutellum and post-scutellum longitudinally rugose-striate; the enclosed portion of the metathorax rugose in the middle and striated at the sides; wings hyaline, their apical margins faintly clouded;

the legs black; the abdomen blue-black, the second joint of the petiole and base of the abdomen ferruginous beneath.

The male only differs in being rather smaller.

Hab. Brazil.

54. Ammophila rufipes.

Ammophila rufipes, *Guér. Voy. Coq. Zool.* pt. 2. p. 262. *Atlas, Ins.* no. 9. f. 1.
Spin. Gay's Chili, vi. 393. 1.

Hab. Peru.

55. Ammophila abbreviata. B.M.

Pelopœus abbreviatus, *Fabr. Syst. Piez.* p. 204. 8.
Ammophila abbreviata, *Dahlb. Hym. Europ.* i. 15.
St. Farg. Hym. iii. 375. 15.
Erichs. Faun. et Fl. Brit. Guiana, 588. 1.

Hab. South America.

56. Ammophila Eugenia.

Female. Length 15 lines.—Head and thorax black; the face densely clothed with golden pile; the clypeus produced and having a short blunt tooth at the apex; mandibles ferruginous, their tips black. The pro- and mesothorax and also the tegulæ covered with a changeable pale golden silky pile; the tubercles, a large patch beneath the wings, and a spot at the apex of the metathorax, on each side of the insertion of the petiole, of pale golden pubescence; the coxæ and breast are also thinly covered with a similar coloured pile; the enclosed portion of the metathorax obliquely rugose-striate in the middle and evenly striated at the sides; the legs red; a stripe on the intermediate femora above, another above and beneath on the posterior pair, the knees, the tips of the joints of the tarsi, and the claw-joint, entirely black; the wings hyaline, their apical margins faintly clouded. Abdomen ferruginous, covered with a fine sericeous pile; the first joint of the petiole and the base of the second joint black; the third segment black, its apical margin narrowly ferruginous in the middle.

Hab. Rio Grande. (Coll. W. W. Saunders, Esq.)

57. Ammophila ruficosta.

Ammophila ruficosta, *Spin. Gay's Chili*, vi. 394. 2.

Hab. Chili.

58. Ammophila gracilis.

Ammophila gracilis, *St. Farg. Hym.* iii. 381. 21.

Hab. Mexico.

59. Ammophila atriceps. B.M.

Female. Length 8 lines.—Black: head coarsely punctured; the anterior margin of the clypeus rounded; the face and cheeks have a long thin black pubescence, a few black hairs also on the vertex. Thorax coarsely punctured, and having a long thin griseous pubescence; the enclosed portion of the metathorax rugose at the base and rugose-striate at the apex; wings fusco-hyaline, the nervures black. Abdomen ferruginous; the petiole, the apical half of the fourth segment, and the fifth and sixth, black.

Male.—This sex has the head clothed with black pubescence and the face silvery; the clypeus slightly produced, its anterior margin rounded; the thorax is closely punctured; the abdomen as in the female.

Hab. Mexico.

60. Ammophila breviceps. B.M.

Female. Length 8 lines.—Black: the face densely covered with silvery pile; the vertex smooth; the sides of the thorax clothed with silvery pile, the disk and mesothorax thinly covered with pile, the latter transversely striated; the mesothorax punctured and having a central longitudinal impressed line; the wings hyaline and iridescent, their apical margins faintly clouded; the nervures rufo-testaceous, the tegulæ and legs ferruginous; the coxæ and base of the femora black; the posterior tibiæ slightly fuscous towards their apex. Abdomen red; the first joint of the petiole black, the second more or less fuscous above; the first segment of the abdomen has an elongate fuscous stripe above, the third a small spot at its basal margin, the fourth is black except a narrow apical border, and the extreme apex is fuscous.

Hab. Mexico.

Only a single specimen of this species is in the Collection: it is most probable that a series would exhibit great variety in the markings on the abdomen: in general appearance it closely resembles *A. nasuta*, but the clypeus is not produced.

61. Ammophila placida. B.M.

Male. Length 9 lines.—Black: the face and cheeks have a long thin black pubescence. The prothorax smooth; the meso-

thorax very finely wrinkled transversely, and having on each side before the tegulæ a short impressed line; the metathorax very delicately transversely striated, beyond the enclosed portion rugose; the wings hyaline with stains of yellow, the nervures and tegulæ behind pale ferruginous; the apical margins of the wings faintly clouded. Abdomen: the petiole elongate, the second joint towards the apex beneath, and the base of the first segment of the abdomen ferruginous.

Hab. California.

62. Ammophila Gryphus. B.M.

Female. Length 14–16 lines.—Black: the face thinly covered with silvery pile; the clypeus slightly produced, punctured and subemarginate; the vertex smooth, and covered, as well as the cheeks, with a thin fine silky pile; the pro- and mesothorax transversely striated, the latter having a central longitudinal impressed line; the scutellum and post-scutellum longitudinally striate; the metathorax obliquely striated; the tubercles silvery, an oblique silvery stripe beneath the wings, and a similar one behind it on the sides of the metathorax, the apex of the latter and the posterior coxæ above covered with silvery pile; the wings subhyaline, with a narrow fuscous stripe beyond the marginal cell. Abdomen: the petiole elongate, the second joint beneath, at its apex above, and the first segment of the abdomen ferruginous; the following segments obscurely æneous.

Male.—Sculptured and adorned like the female, differing in being rather smaller, and in the abdomen and petiole being black above, the basal segment of the abdomen ferruginous beneath.

Hab. North America (Charleston; East Florida; California).

Specimens from California are smaller and have more red on the abdomen; in every other particular they agree with those from the Eastern States.

63. Ammophila sæva. B.M.

Female. Length 11–12 lines.—Head and thorax black; the face and cheeks covered with short silvery pubescence; the vertex smooth and shining. The pro- and mesothorax transversely, irregularly and coarsely striated, and each having a central longitudinal deeply impressed line; the mesothorax has also posteriorly a deep longitudinal depression on each side of the central one; the metathorax has the enclosed portion obliquely striated from the centre; the sides of the thorax and the pectus rugose; a minute spot of silvery pubescence beneath the wings at their

insertion, two broad oblique lines on the sides of the thorax, the metathorax behind, also the intermediate and posterior coxæ behind, covered with silvery pubescence; the wings fusco-hyaline, the posterior pair palest, hyaline towards their base. Abdomen ferruginous; the first joint of the petiole and a large macula on the fourth and fifth segments above, black.

Hab. California.

64. Ammophila intercepta. B.M.

Ammophila intercepta, *St. Farg. Hym.* iii. 378. 18.

Hab. North America (Illinois).

65. Ammophila arvensis.

Ammophila arvensis, *St. Farg. Hym.* iii. 384. 25.

Hab. North America.

66. Ammophila urnaria. B.M.

Ammophila urnaria, *Dahlb. Hym. Europ.* i. 14.
Ammophila conditor, *Harris, Cat. Ins. Massach.*

Hab. South Carolina; Nova Scotia; St. John's Bluff, East Florida.

67. Ammophila nigricans.

Ammophila nigricans, *Dahlb. Hym. Europ.* i. 14.

Hab. South Carolina.

68. Ammophila conditor. B.M.

Female. Length 8½ lines.—Black: the clypeus coarsely punctured; the prothorax transversely striated; the mesothorax coarsely punctured, the punctures running into striæ at the sides; the scutellum longitudinally grooved; the enclosed portion of the metathorax obliquely striated, beyond which it is rugose; wings fusco-hyaline, the nervures and tegulæ behind ferruginous. Abdomen: the petiole elongate, the second joint and first segment of the abdomen red, the base of the former black towards the base above.

Hab. St. John's Bluff, East Florida.

69. Ammophila cementaria. B.M.

Female. Length 7–8½ lines.—Black: head strongly punctured, thinly covered with long black pubescence; the pro- and mesothorax, scutellum and post-scutellum coarsely punctured;

the collar has an impressed line in the centre, as well as the mesothorax; the enclosed portion of the metathorax finely aciculate transversely, beyond it is strongly punctured. The thorax covered with long black pubescence at the sides; wings dark fuscous, the posterior pair being subhyaline towards their base; the apical margins have a darker cloud, and the wings are adorned with a violet iridescence. Abdomen ovate, attached by a short petiole, which is black; the first and second segments red.

Hab. St. John's Bluff, East Florida; Georgia.

70. AMMOPHILA LUCTUOSA. B.M.

Female. Length 9 lines.—Black: head and thorax coarsely punctured, thickly covered with long black pubescence, which is most sparing on the disk of the thorax; the metathorax rugose; wings dark fuscous, the posterior pair being subhyaline towards their base. Abdomen ovate, attached by a short petiole, and very smooth and shining.

Hab. Nova Scotia; California; Rocky Mountains.

71. AMMOPHILA PROCERA.

Ammophila procera, *Dahlb. Hym. Europ.* i. 15.
St. Farg. Hym. iii. 376. 16.

Hab. North America.

72. AMMOPHILA VIOLACEIPENNIS.

Ammophila violacei-pennis, *St. Farg. Hym.* iii. 370. 10.

Hab. Philadelphia.

73. AMMOPHILA APICALIS.

Ammophila apicalis, *Guér. Icon. Règ. Anim.* iii. p. 435. t. 70. f. 3.

Hab. Cuba.

Genus 2. MISCUS.

Miscus, *Jurine, Hym.* i. 130 (1807).
Ammophila, pt., *Latr. Gen. Crust. et Ins.* iv. (1809).
Sphex, pt., *Zett. Ins. Lapp.* p. 436 (1840).

1. MISCUS CAMPESTRIS.

Ammophila campestris, *Latr. Gen. Crust. et Ins.* iv. 54.
St. Farg. & Serv. Ency. Méth. x. 453. 3.
Curtis, Brit. Ent. xiii. t. 604.

Miscus campestris, *Van d. Lind. Obs.* i. 93. 1.
Shuck. Foss. Hym. 80. 1.
Dahlb. Hym. Europ. i. 7. 9.
St. Farg. Hym. iii. 386. t. 30. f. 5.
Steph. Illust. vii. *Supp.* p. 15. t. 41. f. 4.
Wesm. Hym. Foss. Belg. p. 70. 1.
Sphex campestris, *Zett. Ins. Lapp.* 436. 3.

2. Miscus neoxenus. B.M.

Female. Length 8 lines.—Black: the head smooth, slightly shining, the face densely covered with short silvery pile; a thin silky pile covers the vertex; a central impressed line in front of the anterior stemma extending to the insertion of the antennæ; the clypeus has a shining naked space in the middle anteriorly. Thorax: the pro- and mesothorax subrugose and thinly covered with short white silky pubescence; the scutellum longitudinally rugose; the enclosed space on the metathorax obliquely striated, the sides have a thin silky short white pubescence; the sides of the breast and the tubercles densely covered with bright glittering silvery pubescence; the wings subhyaline, the nervures fuscous; the stigma, extreme base of the wings and the tegulæ behind pale ferruginous. Abdomen ferruginous, the three apical segments black.

The male resembles the female, but is more pubescent, the body and legs are entirely covered with short silky pile, and the head and thorax have a thin scattered long white pubescence; the first joint of the petiole black.

Hab. North China (Shanghai).

Genus 3. COLOPTERA.

Coloptera, *St. Farg. Hym.* iii. 387. 1.

1. Coloptera Barbara.

Coloptera Barbara, *St. Farg. Hym.* iii. 387. 1.
Lucas, Explo. Sc. Algér. iii. 276. t. 14. f. 9.

Hab. Algeria (Oran).

2. Coloptera proxima.

Female. Length 13 lines.—Black: the clypeus anteriorly, the scape and the mandibles ferruginous; four or five of the basal joints of the flagellum fusco-ferruginous; the tips of the mandibles black; the clypeus truncate, the angles acute; the

sides of the face densely covered with pale golden pile. Thorax: the pro- and mesothorax above ferruginous and transversely striated; the anterior margin of the mesothorax covered with golden pile, a black stripe running down the middle; the scutellum and post-scutellum longitudinally striated, the metathorax obliquely so; the sides, beyond the enclosed space, finely rugose; the legs fusco-ferruginous, the anterior pair, the intermediate tibiæ, the articulations and beneath being of a brighter red; the wings fuscous and slightly iridescent. Abdomen thinly covered with a fine cinereous pile, the joints of the petiole ferruginous beneath.

Hab. Guinea. (Coll. W. W. Saunders, Esq.)

This insect closely resembles *Ammophila tenuis* and *Beniniensis*, for either of which it might, without an examination of the neuration of the wings, be easily mistaken.

Genus 4. TRIGONOPSIS.

Trigonopsis, *Perty, Del. An. Art.* p. 142 (1830–4).

1. Trigonopsis rufiventris. Pl. VI. fig. 1.

Podium rufiventre, *Fabr. Syst. Piez.* 184. 2.
Trigonopsis abdominalis, *Perty, Del. An. Art.* p. 142. t. 27. f. 17.

Hab. ——?

This insect appears to be the *Podium rufiventre* of Fabricius; the large depressed head, the large eyes, and above all the white scutellum, are described in the *Systema Piezatorum*; the latter is not strictly correct, the white being a patch of silvery pubescence beneath the scutellum.

2. Trigonopsis affinis. B.M.

Trigonopsis affinis, *Smith, Ann. & Mag. Nat. Hist.* vii. 31 (1851).

Hab. Brazil (Para).

This species differs from *T. rufiventris* in having the head less depressed, the prothorax much shorter and less attenuated, the metathorax transversely striated, and the anterior and intermediate tibiæ and tarsi ferruginous.

3. Trigonopsis violaceus. B.M.

Trigonopsis violaceus, *Smith, Ann. & Mag. Nat. Hist.* vii. 31 (1851).

Hab. Brazil (Para).

This species has the head and abdomen violet; the thorax and legs black, with faint tints of blue; the metathorax has a deep central longitudinal channel, which is transversely striated: the sides are rugose; the head, prothorax and wings as in *T. rufiventris*.

Genus 5. PELOPŒUS.

Sphex, pt., *Linn. Syst. Nat.* i. 492 (1761).
Pelopœus, *Latr. Hist. Nat. Ins.* xiii. (1804).
Pepsis, pt., *Illig. Ed. Faun. Etrus.* ii. 94 (1807).
Chalybion, *Dahlb. Hym. Europ.* i. 21 (1845).

1. Pelopœus spirifex. B.M.

Sphex spirifex, *Linn. Syst. Nat.* i. 942. 9.
Fabr. Ent. Syst. ii. 204. 24.
Christ. Hym. 303. t. 30. f. 2.
Sphex Ægyptia, *Linn. Syst. Nat.* i. 942. 10 (var.).
Pelopœus spirifex, *Fabr. Syst. Piez.* 202. 1.
Latr. Gen. Crust. et Ins. iv. 60.
Pal. de Beauv. Ins. Afric. et Amér. 49. 7. 3.
Duméril, Consid. 212. t. 32. f. 5.
Van d. Lind. Obs. 95. 1.
Brullé, Expéd. Sc. de Morée, iii. 307. 814; *Hist. Nat. Il. Canar.* iii. 92. 60.
Dahlb. Hym. Europ. i. 22. 1.
St. Farg. Hym. iii. 305. 1.
Eversm. Bull. Mosc. xxi. 249.
Lucas, Explo. Sc. Algér. iii. 273. t. 14. f. 10.

Hab. Europe; North Africa.

2. Pelopœus destillatorius. B.M.

Sphex spirifex, *Sulzer, Hist. Ins.* t. 27. f. 2 (nec *Linn.*).
Schæff. Icon. Ins. Ratisb. t. 38. f. 1.
Panzer, Faun. Germ. 76. 15.
Pepsis destillatorius, *Illig. Ed. Faun. Etrus.* ii. 94.
Pelopœus destillatorius, *Latr. Gen. Crust. et Ins.* iv. 60. 2.
Van d. Lind. Obs. i. 96. 2.
Dahlb. Hym. Europ. i. 22. 2.
Eversm. Bull. Mosc. xxi. 249 (1848).

Hab. France; Italy; Germany; Sicily; Russia.

3. Pelopœus femoratus. B.M.

Sphex femorata, *Fabr. Ent. Syst.* ii. 202. 16.
Pepsis femorata, *Fabr. Syst. Piez.* 212. 20.
Spin. Ins. Lig. i. 72. 5.
Pelopœus femoratus, *Latr. Gen. Crust. et Ins.* iv. 61.
Van d. Lind. Obs. i. 97. 5.
St. Farg. Hym. iii. 322. 23.
Chalybion femoratus, *Dahlb. Hym. Europ.* i. 433. 4.

Hab. Italy; Albania; Geneva.

4. Pelopœus tubifex.

Sphex spirifex, var. β, *Rossi, Faun. Etrus.* ii. 61. t. 2. f. 13.
Pelopœus tubifex, *Latr. Gen. Crust. et Ins.* iv. 61.
Van d. Lind. Obs. i. 96. 4.
St. Farg. Hym. iii. 314. 14.

Hab. Albania.

5. Pelopœus pensilis. B.M.

Pepsis pensilis, *Illig. Ed. Faun. Etrus.* ii. 94.
Pelopœus pensilis, *Latr. Gen. Crust. et Ins.* iv. 60. 3.
Van d. Lind. Obs. i. 96. 3.
St. Farg. Hym. iii. 306. 3. t. 29. f. 2.
Lucas, Explo. Sc. Algér. iii. 273. t. 14. f. 10.

Hab. Central Europe; Albania; Portugal; North Africa (Oran).

6. Pelopœus Sardonius.

Pelopœus Sardonius, *St. Farg. Hym.* iii. 308. 5.

Hab. Sardinia.

7. Pelopœus violaceus. B.M.

Sphex violacea, *Fabr. Ent. Syst.* ii. 201. 12.
Pepsis violacea, *Fabr. Syst. Piez.* 211. 16.
Chalybion violaceum, *Dahlb. Hym. Europ.* i. 432. 1.
Pelopœus flebilis, *St. Farg. Hym.* iii. 321. 22.

Hab. Smyrna; Constantinople.

8. Pelopœus Arabs. B.M.

Pelopœus arabs, *St. Farg. Hym.* iii. 309. 7.

Hab. Arabia; Turkey.

9. Pelopœus tibialis. B.M.

Sphex tibialis, *Fabr. Ent. Syst.* ii. 202. 17.
Pepsis tibialis, *Fabr. Syst. Piez.* 212. 21.
St. Farg. Hym. iii. 323. 24.

Hab. Cape of Good Hope.

10. Pelopœus chalybeus. B.M.

Female. Length 8 lines.—Deep blue: head strongly and closely punctured; the clypeus convex; the mandibles and one or two of the basal joints of the flagellum obscurely ferruginous. Thorax: the pro- and mesothorax with a central longitudinal impressed line, sparingly punctured and shining; wings black, with a violet iridescence; the metathorax blue-green, closely punctured, the apex rugose. Abdomen smooth and shining.

The male has the antennæ and mandibles black, or the latter very obscurely ferruginous in the middle, the metathorax concolorous, and the tarsi obscurely rufo-testaceous.

Hab. Port Natal; the Gambia.

11. Pelopœus fuscipennis. B.M.

Female. Length 9½ lines.—Head and thorax black; the face thinly covered with griseous down and finely punctured; the mandibles, clypeus anteriorly, and the antennæ ferruginous; five or six of the apical joints of the flagellum black. Thorax: the pro- and mesothorax, as well as the scutellum, shining and sparingly punctured, each having a central depression; the metathorax transversely wrinkled, coarsely so at the apex; wings dark fuscous, with a purple iridescence; the tegulæ violet; the legs ferruginous, the posterior femora and tibiæ more or less fuscous above. Abdomen purple, the petiole ferruginous towards the base.

Hab. Sierra Leone. (The Rev. D. F. Morgan.)

12. Pelopœus hemipterus. B.M.

Sphex hemiptera, *Fabr. Ent. Syst. Supp.* 244. 11.
Pelopœus hemipterus, *Fabr. Syst. Piez.* 204. 7.
Dahlb. Hym. Europ. i. 23. 4.
St. Farg. Hym. iii. 311. 10.

Hab. Isle of France; Africa.

13. Pelopœus lætus. Pl. VII. fig. 1. B.M.

Female. Length 10–12 lines.—Black: the face densely clothed with golden pile, the head having a thin pale yellow pubescence;

the antennæ yellow, five or six of the apical joints black or fuscous; the mandibles ferruginous. Thorax: the collar, tegulæ, a stripe beneath the wings, the scutellum, post-scutellum, apex of the metathorax and the legs yellow; the scutellum and post-scutellum longitudinally striated; the metathorax with a central longitudinal depression, obliquely striated; the anterior and intermediate coxæ and trochanters, the posterior coxæ at their base, and the apical half of the posterior femora, black; the extreme base of the posterior tibiæ, their apex, and also the apical joint of the posterior tarsi, black; the wings hyaline, the nervures pale ferruginous. Abdomen: the petiole, the first segment, the fourth segment more or less, and the fifth and sixth entirely yellow.

Male. Length 9 lines.—Differs only in having the yellow parts paler and brighter.

Hab. Australia (Port Essington; Macintyre River; Swan River); Ceram.

Specimens received from Swan River have the yellow spots on the scutellum and metathorax nearly or quite obsolete.

14. Pelopœus formosus. B.M.

Female. Length 8½ lines.—Black: the clypeus, scape, and four basal joints of the flagellum yellow: the latter are black at the sides; the mandibles ferruginous; the face clothed with golden pile. Thorax: the collar, tegulæ, a stripe beneath the wings, the scutellum, a spot on each side of the metathorax at its base, a larger one at its apex, and two oblong approximate spots in the middle, yellow; the meso- and metathorax transversely striated; the legs yellow; the coxæ black, the intermediate and posterior pairs spotted with yellow; the trochanters black, the intermediate and posterior pairs yellow at their apex; the extreme base of the anterior and intermediate femora, the posterior pair, except their base and apex, black; wings hyaline, the anterior pair fuscous at their tips, the nervures ferruginous. Abdomen: the petiole, the first segment, the fourth more or less, and the fifth and sixth entirely yellow.

Hab. Australia.

15. Pelopœus Bengalensis. B.M.

Chalybion Bengalensis, *Dahlb. Hym. Europ.* i. 433. 2.
Pelopœus violaceus, *St. Farg. Hym.* iii. 321. 22.
Chalybion pruinosus, *Dahlb. Hym. Europ.* i. 433 (var.).

Hab. India (Madras, Bengal); Philippine Islands; China; Isle of France.

16. Pelopœus Javanus. B.M.

Pelopœus Javanus, *St. Farg. Hym.* iii. 309. 6.
Hab. Java.

17. Pelopœus Madraspatanus. B.M.

Sphex Madraspatana, *Fabr. Ent. Syst.* ii. 204. 25.
Pelopœus Madraspatanus, *Fabr. Syst. Piez.* 203. 3.
Dahlb. Hym. Europ. i. 22. 3.

Hab. Malabar; Madras; Nepaul; Bengal.

18. Pelopœus Solieri.

Pelopœus Solieri, *St. Farg. Hym.* iii. 318. 18.

Hab. India. (Coll. W. W. Saunders, Esq.)

19. Pelopœus Spinolæ. B.M.

Pelopœus Spinolæ, *St. Farg. Hym.* iii. 307. 4.

Hab. Bombay; Ceylon.

20. Pelopœus deformis. B.M.

Female. Length 8 lines.—Black: the clypeus and scape in front yellow; the anterior margin of the clypeus and the mandibles ferruginous; the face covered with golden pile, the head thinly covered with long pale pubescence. Thorax: the posterior margin of the prothorax, the tegulæ, a stripe beneath the wings and another on the scutellum, a small spot on each side of the metathorax at the base and a larger spot at its apex, yellow; the meso- and metathorax transversely striated; the anterior and intermediate tibiæ yellow in front; the posterior tibiæ within and all the femora beneath ferruginous. Abdomen: the petiole black; the first segment entirely and the apical margins of the following segments of a reddish-yellow: the wings subhyaline, their nervures ferruginous.

Hab. North China. (Coll. R. Fortune, Esq.)

21. Pelopœus Coromandelicus. B.M.

Pelopœus Coromandelicus, *St. Farg. Hym.* iii. 306. 2.
Pelopœus fuscus, *St. Farg. Hym.* iii. 311. 9 (var.).

Hab. Coromandel; Central India.

22. Pelopœus pictus.

Male. Length 7½ lines.—Black: the face clothed with short silvery pubescence; the scape in front and the tips yellow. Tho-

rax: the collar, tegulæ, a stripe beneath the wings, the scutellum and post-scutellum yellow; a spot on each side of the metathorax at its base, the whole of the posterior portion above, and a broad stripe on each side of the enclosed portion uniting behind, yellow; the mesothorax obliquely striated inwardly; the wings slightly coloured, their tips fuscous; the anterior and intermediate legs yellow, the coxæ, trochanters and base of the femora black, the apical joints of the tarsi fusco-ferruginous; the posterior legs black; the tips of the coxæ, the trochanters, base of the femora and tibiæ, and the basal joint of the tarsi, yellow, the apical joints of the latter fusco-ferruginous. Abdomen black, the petiole yellow.

Hab. India. (Coll. W. W. Saunders, Esq.)

It is possible that this may prove to be only a highly-coloured local variety of *P. Madraspatanus*.

23. Pelopœus rufopictus. B.M.

Female. Length 8 lines.—Black: the head and thorax thinly covered with pale fulvous pubescence; the face thinly covered with golden pile; the scape of the antennæ, the clypeus and mandibles, ferruginous; the apex of the third and fourth joints of the antennæ ferruginous beneath, the base of the latter black. Thorax: a line on the collar, a transverse spot on the scutellum, the apex of the metathorax, and a spot on each side of the metathorax at its base, reddish-yellow; the legs ferruginous, the coxæ and trochanters black; the meso- and metathorax transversely striated; the wings yellow-hyaline, the nervures and tegulæ ferruginous; the apex of the superior wings with a fuscous cloud. Abdomen: the petiole black and curved; the first segment, the apical margins of the second, fourth and fifth with a narrow fascia, and the apical margin of the third with a broad band, reddish-yellow; the apical segment ferruginous.

Hab. Celebes.

This species closely resembles the *P. difformis* from North China, but it differs too much in colouring to justify its being considered a mere variety.

24. Pelopœus cæruleus. B.M.

Sphex cærulea, *Linn. Syst. Nat.* i. 941. 2.
Sphex cyanea, *Fabr. Ent. Syst.* ii. 201. 13.
De Geer, Ins. iii. 589. 6. t. 30. f. 6.
Pepsis cyanea, *Fabr. Syst. Piez.* 211. 17.
Chalybion cyaneum, *Dahlb. Hym. Europ.* i. 22. 3.
Pelopœus cæruleus, *St. Farg. Hym.* iii. 320. 20.

Hab. North America; Carolina; East Florida.

25. Pelopœus flavipes. B.M.

Sphex flavipes, *Fabr. Ent. Syst.* ii. 202. 18.
Pelopœus flavipes, *Fabr. Syst. Piez.* 204. 9.
Pelopœus architectus, *St. Farg. Hym.* iii. 313. 12.

Hab. North America.

This species varies in having the apex of the metathorax more or less yellow, and sometimes entirely black; the latter variety is the *P. architectus* of St. Fargeau.

26. Pelopœus Servillei.

Pelopœus Servillei, *St. Farg. Hym.* iii. 313. 13.

Hab. New Orleans.

27. Pelopœus Canadensis. B.M.

Male. Length 8 lines.—Black: the face clothed with short silvery pubescence; the clypeus produced and notched in the middle; the tips of the mandibles ferruginous; the scape yellow. Thorax: a subinterrupted line on the collar, the tegulæ, a spot on the scutellum and post-scutellum, and two spots at the apex of the metathorax, yellow; the metathorax transversely striated, with a deep longitudinal channel in the enclosed portion of the metathorax; the mesothorax finely rugose, running into striæ towards the scutellum, over which the striæ also run; wings slightly coloured, their tips fuscous, the nervures ferruginous; the apex of the anterior femora, the tibiæ and tarsi, yellow, two or three of the apical joints of the latter fuscous; the posterior tibiæ at their base and the three basal joints of the tarsi yellow. Abdomen: the dilated portion of the petiole yellow on each side.

Hab. Canada.

28. Pelopœus fistularis. B.M.

Pelopœus fistularis, *Dahlb. Hym. Europ.* i. 23. 8.
Pelopœus histrio, *St. Farg. Hym.* iii. 316. 16.
Erichs. Faun. et Fl. Brit. Guiana, iii. 588.

Hab. Brazil; Cayenne.

29. Pelopœus bimaculatus. B.M.

Pelopœus bimaculatus, *St. Farg. Hym.* iii. 319. 19.

Hab. Cayenne; Columbia.

This is in all probability a variety of *P. figulus.*

30. Pelopœus figulus. B.M.

Pelopœus figulus, *Dahlb. Hym. Europ.* i. 23. 6.
Pelopœus vindex, *St. Farg. Hym.* iii. 317. 17.
Erichs. Faun. et Fl. Brit. Guiana, iii. 588.

Hab. Cayenne; Rio Grande; Honduras; St. Domingo; British Guiana.

31. Pelopœus cementarius. B.M.

Sphex cementaria, *Drury, Exot. Ins.* i. 105. t. 44. f. 6, 8.
Sphex flavipunctata, *Christ. Hym.* 301. t. 30. f. 1.
Sphex lunata, *Fabr. Ent. Syst.* ii. 203. 20.
Pelopœus lunatus, *Fabr. Syst. Piez.* 203. 4.
Pal. de Beauv. Ins. Afric. et Amér. 50. t. 7. f. 4.
Guér. Icon. Règ. Anim. p. 436. t. 70. f. 5.
Dahlb. Hym. Europ. i. 23. 5.
St. Farg. Encycl. Méth. x. 35. 5; *Hym.* iii. 312. 11.
Guêpe Ichneumon, *De Geer, Ins.* iii. 588. 4. t. 30. f. 4.
Pelopœus affinis, *Fabr. Syst. Piez.* 204. 5 (var.).

Hab. Antigua; St. Christopher's; Jamaica; St. Domingo; Cayenne.

32. Pelopœus fasciatus. B.M.

Pelopœus fasciatus, *St. Farg. Hym.* iii. 315. 15.

Hab. St. Domingo.

33. Pelopœus Jamaicensis.

Sphex Jamaicensis, *Fabr. Ent. Syst.* ii. 203. 22.
Pelopœus Jamaicensis, *Fabr. Syst. Piez.* 204. 6 (var. *P. lunatus*?).

Hab. Jamaica.

34. Pelopœus Chilensis.

Pelopœus Chilensis, *Spin. Gay's Chili,* vi. 395. 1.

Hab. Chili.

Genus 6. PODIUM.

Pepsis, pt., *Fabr. Syst. Piez.* 210 (1804).
Podium, *Fabr. Syst. Piez.* 183. 30 (1804).

1. Podium rufipes. B.M.

Podium rufipes, *Fabr. Syst. Piez.* 183. 1.
Latr. Gen. Crust. et Ins. iv. 59.
Dahlb. Hym. Europ. i. 24.

Hab. South America; St. Domingo.

2. Podium luteipennis. Pl. VI. fig. 2. B.M.

Pepsis luteipennis, *Fabr. Syst. Piez.* 210. 10.
Podium flavipenne, *Latr. Gen. Crust. et Ins.* iv. 59.
St. Farg. Encycl. Méth. x. 164. 1.
Podium luteipenne, *Dahlb. Hym. Europ.* i. 23.
St. Farg. Hym. iii. 324. 2.
Podium Latreillei, *Spin. Mem. Accad. Torino*, xiii. ser. 2. p. 51.

Hab. Brazil (Para); Cayenne.

3. Podium consanguineum. B.M.

Female. Length 8½ lines.—Black and shining: the face strongly punctured, the vertex sparingly and delicately so. Thorax strongly punctured, the punctures distant on the mesothorax and scutellum, which are highly polished; the anterior and intermediate femora, tibiæ and tarsi ferruginous; the femora black at their base, the tibiæ and tarsi fuscous above; wings flavo-hyaline, the nervures and tegulæ pale ferruginous; the calcariæ ferruginous. Abdomen smooth, shining and impunctate.

Hab. South America.

4. Podium hæmatogastrum. B.M.

Podium hæmatogastrum, *Spin. Mem. Accad. Torino*, xiii. 50. 33.

Hab. Brazil (Para; Tapajos).

5. Podium nitidum. B.M.

Podium nitidum, *Spin. Mem. Accad. Torino*, xiii. 49. 32.

Hab. Brazil (Para).

6. Podium luctuosum.

Female. Length 10 lines.—Black: head and thorax shining, finely and distantly punctured; the metathorax closely punctured; the head, thorax and petiole covered with long black pubescence; the tips of the mandibles, tibiæ, tarsi, and apex of the femora, ferruginous; wings dark brown with a violet iridescence; the abdomen smooth, shining and impunctate.

Hab. North Carolina. (Coll. F. Smith.)

7. Podium opalinum. B.M.

Female. Length 6½ lines.—Black: the head shining and delicately punctured, with a thinly scattered long black pubescence. Thorax: the mesothorax and scutellum highly polished, and having a few scattered delicate punctures; the metathorax closely punctured; in the centre a deeply impressed longitudinal channel; the thorax, coxæ and trochanters, and also the petiole of the abdomen, with thinly scattered long black hairs; the anterior wings fuscous, with a brilliant violet iridescence and two fasciæ, the first crossing at the apex of the externo-medial cell, the second passing over the second submarginal cell; the posterior wings hyaline, with their apex slightly fuscous. The abdomen has a brilliant opaline iridescence.

Male. Length 6 lines.—This sex only differs in having the wings paler and the anterior tibiæ rufo-testaceous in front.

Hab. Jamaica.

This species appears to approach very closely to the *Ammophilus fumigatus* of Perty.

8. Podium complanatum.

Female. Length 10 lines.—Shining jet-black: the head compressed, sparingly and delicately punctured; the anterior margin of the clypeus emarginate. The prothorax elongate, the sides rounded, convex above, impunctate; the mesothorax, scutellum and post-scutellum impunctate; the metathorax flattened, longitudinally strigose-punctate at the base in the middle, the apical half with scattered delicate punctures; a central longitudinal slightly impressed line terminates in a fasciolet near the apex; the wings hyaline, with a narrow dark fascia crossing at the second submarginal cell, and a fuscous stain traversing the externo-medial nervure; the legs smooth and shining. Abdomen: flattened, highly polished and impunctate; the petiole bent, curving upwards.

Hab. South America. (Coll. W. W. Saunders, Esq.)

9. Podium denticulatum.

Female. Length 8 lines.—Black: the face closely, the vertex distantly and delicately punctured; the clypeus armed with six acute teeth on its anterior margin; the sides of the face have a short silvery pubescence, the vertex and cheeks thinly clothed with long silvery hairs. Thorax: the mesothorax and scutellum have a few delicate scattered punctures and are smooth and shining; the metathorax, the sides and beneath more strongly and closely punctured; the prothorax has a central depression on its

posterior margin, and the mesothorax an abbreviated one at its base; the sides and the metathorax with a thinly scattered silvery-white pubescence; the anterior and intermediate tibiæ and the femora at their apex ferruginous, the extreme base of the posterior tibiæ ferruginous; wings hyaline, the superior pair have a fuscous fascia occupying the second submarginal cell; a fuscous stain traverses the posterior margin of the externo-medial cell; the apex of the wings is faintly clouded. Abdomen smooth, shining and impunctate.

Male.—This sex is rather smaller, more slender and pubescent; the clypeus is only armed with two teeth, which are longer than in the other sex and more acute; the abdomen is covered with a fine silky pilosity.

Var. *a*. The anterior and intermediate tibiæ obscurely ferruginous.

Hab. Brazil. (Coll. F. Smith.)

Genus 7. STETHORECTUS.

Podium, *Westw. Griff. An. Kingd.* xv. 516 (1832).
Stethorectus, *Smith, Ann. & Mag. Nat. Hist.* xx. 394 (1847).

1. Stethorectus ingens. B.M.

Stethorectus ingens, *Smith, Ann. & Mag. Nat. Hist.* xx. 394. t. 23. f. 1 ♀, 2 ♂.
Podium giganteum, *Erichs. Faun. et Fl. Brit. Guiana*, iii. 589?

Hab. Brazil (Para); British Guiana.

2. Stethorectus nigripes. B.M.

Podium nigripes, *Westw. Griff. An. Kingd.* xv. 516. t. 76. f. 3.

Hab. Brazil.

Genus 8. CHLORION.

Sphex, pt., *Fabr. Ent. Syst.* ii. 206 (1793).
Chlorion, pt., *Latr. Hist. Nat. des Crust. et Ins.* iii. (1804).
Pronæus, *Saund. Trans. Ent. Soc.* iii. 58 (1841).

1. Chlorion lobatum. B.M.

Sphex lobata, *Fabr. Ent. Syst.* ii. 206. 30.
Chlorion lobatum, *Latr. Gen. Crust. et Ins.* iv. 57.
Dahlb. Hym. Europ. i. 24 .1.
St. Farg. Hym. iii. 330. 3.

Chlorion azureum, *St. Farg. Encycl. Méth.* x. 451. 2; *Hym.* iii. 329. 1.

Hab. India; China.

An examination of a large number of specimens from various parts of India and China shows that this insect is very inconstant in colour, varying from brassy or golden green to dark blue; and the colour of the mandibles varies from ferruginous to black: no specific difference appears to exist.

2. Chlorion cæruleum. B.M.

Sphex cærulea, *Drury, Exot. Ins.* ii. 75. t. 39. f. 8.
Chlorion cyaneum, *Dahlb. Hym. Europ.* i. 24. 1.

Hab. North America; Mexico.

3. Chlorion splendidum. B.M.

Chlorion splendidum, *Fabr. Syst. Piez.* 218. 5.
Smith, Ann. & Mag. Nat. Hist. vii. 32 (1851).
Pronæus Campbellii, *Saund. Trans. Ent. Soc. Lond.* iii. 58. t. 5. f. 1 ♀.
Sphex pulchra, *St. Farg. Hym.* iii. 355. 31 ♂.

Hab. Northern India.

4. Chlorion viridi-cæruleum. B.M.

Chlorion viridi-cæruleum, *Encycl. Méth.* x. 451. 1; *Hym.* iii. 330. 2.

Hab. Cayenne.

5. Chlorion melanosoma. B.M.

Female. Length 13–17 lines.—Black: the mandibles and clypeus, the scape and four or five of the basal joints of the flagellum ferruginous; the apical joints of the flagellum fuscous; the anterior tibiæ and tarsi ferruginous; the wings yellow, the apical margins of the anterior pair dark fuscous, the posterior margin of the hinder wings with a pale fuscous border, the nervures pale ferruginous, the tegulæ ferruginous behind. Thorax with scattered black pubescence; the prothorax transversely striated in front, elevated and deeply notched in the middle behind; the mesothorax smooth and shining, with an impressed line on each side over the tegulæ; the metathorax transversely striated; the abdomen smooth and shining; sometimes the abdomen has a chalybeous tint.

Hab. India (Pondicherry).

6. CHLORION RUGOSUM. B.M.

Male. Length 8–9 lines.—Head brassy-green, the margin of the vertex and the cheeks with long white pubescence; the face anteriorly thickly covered with short silvery-white pubescence; the vertex is very finely and very closely punctured, the face longitudinally rugose. Thorax rugose; the prothorax finely roughened, the mesothorax transversely rugose in front and obliquely so behind; the sides of the thorax coarsely strigose, the pectus with scattered shallow punctures; the tibiæ and tarsi black; the metathorax transversely coarsely striated; the wings fusco-hyaline, their apical margins with a dark fuscous border; abdomen smooth, shining and impunctate. The pro- and meso-thorax brassy-green, the metathorax blue-green.

Hab. Sumatra.

Genus 9. PRONÆUS.

Dryinus, pt., *Fabr. Syst. Piez.* 200 (nec *Latr.*) (1804).
Pepsis, pt., *Pal. de Beauv. Ins. Afric. et Amér.* 39. t. 1. f. 1 (1805).
Pronæus, *Latr. Gen. Crust. et Ins.* iv. 56 (1809).

The genus *Pronæus* very closely approaches to *Chlorion*,—in fact contains its African representatives, which only differ from the Indian group in having the labial and maxillary palpi longer; the number of joints are the same, and the neuration of the wings identical; the antennæ of the males are grooved longitudinally, as in the genera *Chlorion* and *Sphex*.

1. PRONÆUS MANDIBULARIS. B.M.

Chlorion mandibulare, *Fabr. Syst. Piez.* 218. 3 ♀.
Pronæus apicalis, *Guér. Voy. Abyss.* (*Lefeb.*) vi. 357, *Atlas*, t. 8. f. 5 & 6 ♂.

Hab. Guinea; Abyssinia; West Africa (Whydah).

2. PRONÆUS MAXILLARIS. B.M.

Pepsis maxillaris, *Pal. de Beauv. Ins. Afric. et Amér.* 39. t. 1. f. 1 ♀.
Pronæus maxillaris, *Latr. Gen. Crust. et Ins.* iv. 56.
St. Farg. Hym. iii. 331. 1. t. 30. f. 1.

Hab. Africa.

3. Pronæus æneus.

Dryinus æneus, *Fabr. Syst. Piez.* 200. 1.
Pronæus æneus, *Latr. Gen. Crust. et Ins.* iv. 56.
Dahlb. Hym. Europ. i. 24. 1.

Hab. Guinea; Port Natal.

4. Pronæus instabilis. B.M.

Female. Length 15–20 lines.—Head black; the inner orbit narrowly and the outer orbit of the eyes broadly rufo-testaceous; the antennæ and face anteriorly rufo-testaceous, the mandibles ferruginous; the head is sometimes rufo-testaceous, with merely a black stain enclosing the ocelli; the mandibles fringed beneath with long hairs. Thorax of an obscure blue-black; sometimes the metathorax is tinged with green; the pro- and mesothorax more or less rufo-testaceous, rarely quite black; the wings nigro-cæruleous; the legs pale ferruginous, the coxæ and trochanters black or fuscous; the abdomen blue with purple iridescence, the apical segment pale ferruginous: in some examples the apical margins of the second and following segments are more or less rufo-piceous.

Male. Length 11 lines.—The male has the antennæ pale fulvous; the head, pro- and mesothorax above, the tegulæ and legs pale ferruginous; the three apical segments of the abdomen are also pale.

Hab. Africa (Guinea; Congo).

5. Pronæus affinis. B.M.

Female. Length 17 lines.—Black: the labrum, anterior margin of the clypeus, the mandibles and antennæ, ferruginous. Thorax clothed above with a short black velvety pubescence; the prothorax with a broad, longitudinal, shallow impressed line or channel; wings as in *P. instabilis*; the tibiæ, tarsi and tips of the femora ferruginous; abdomen obscure blue-black, the apical segment ferruginous.

Male. Length 12 lines.—Thorax and abdomen as in the female; the antennæ, mandibles and legs pale ferruginous; the coxæ, trochanters and base of the femora black.

Hab. Port Natal.

Genus 10. SPHEX.

Sphex, pt., *Fabr. Ent. Syst.* ii. 198 (1793).
Pepsis, pt., *Fabr. Syst. Piez.* 207 (1804).

The genus *Sphex*, as treated in this Catalogue, contains those species only which possess the characteristics of the *Sphex flavipennis* of Fabricius.

Head as wide as the thorax; eyes ovate; antennæ filiform, inserted near the base of the clypeus, grooved more or less longitudinally in the males, inserted near the base of the clypeus; mandibles large and arcuate, bidentate within, the teeth notched at their base, forming a rudimentary tooth; the apical tooth acuminate. Thorax elongate-ovate, truncated behind; the collar transverse; the anterior wings with one marginal and three submarginal cells; the marginal cell elongate, rounded at its apex; the first submarginal cell as long as the two following; the second more or less obliquely quadrate, *receiving the first recurrent nervure at or near its apex*; the third forming a truncated triangle, its posterior margin more or less rounded, receiving the second recurrent nervure about the middle; the anterior tarsi ciliated in the females; *the claws bidentate* beneath at their base. Abdomen conically ovate.

1. Sphex flavipennis. B.M.

Sphex flavipennis, *Fabr. Ent. Syst.* ii. 201. 10.
Latr. Hist. Nat. xiii. 293. 3.
Jurine, Hym. 129. t. 8. gen. 5. fam. 2.
Ahrens, Faun. Europ. 4. 18.
Van d. Lind, Obs. i. 94. 1.
Shuck. Foss. Hym. iii. 349. 1.
St. Farg. Hym. iii. 349. 23.
Lucas, Explo. Sc. Algér. iii. 271.
Sphex maxillosa, *Fabr. Ent. Syst.* ii. 208. 37.
Dahlb. Hym. Europ. i. 26. 9.
Lucas, Explo. Sc. Algér. iii. 271.
Pepsis flavipennis, *Fabr. Syst. Piez.* 210. 13.
Pepsis maxillosa, *Fabr. Syst. Piez.* 213. 27.
Sphex triangulum, *Brullé, Expéd. Sc. Morée*, iii. 365. 807, *Atlas*, t. 50. f. 6 ♀.
Sphex rufo-cincta, *Brullé, Expéd. Sc. Morée*, iii. 367. 809, *Atlas*, t. 50. f. 7 ♂.

Hab. Britain?; France; Italy; Germany; Greece; Portugal; The Morea; Algeria.

An examination of a number of specimens shows that the colour of the pubescence on the face of this insect varies; it is usually silvery, but in some examples inclines to a golden tint; the latter is the colour described by Fabricius.

2. Sphex Occitanica.

Sphex Occitanica, *St. Farg. et Serv. Encycl. Méth.* x. 462. 1 ♂.
St. Farg. Hym. iii. 348. 21.

Hab. Montpellier.

This is probably a variety of the male of *Sphex emarginata* of Brullé, the principal difference being that the second segment of the abdomen is more red than in any example which has been received of that species.

3. Sphex proditor.

Sphex proditor, *St. Farg. Hym.* iii. 354. 29.

Hab. Corsica.

4. Sphex emarginata.

Sphex argyria, *Brullé, Expéd. Sc. Morée*, iii. 367. 810. t. 50. f. 8 ♀.
Sphex emarginata, *Brullé, Expéd. Sc. Morée*, iii. 368. 811, *Atlas*, t. 50. f. 9 ♂.

Hab. The Morea; Albania. (Coll. S. S. Saunders, Esq.)

5. Sphex leuconota.

Sphex leuconota, *Brullé, Expéd. Sc. Morée*, iii. 366. 808.

Hab. The Morea.

6. Sphex subfuscata.

Sphex subfuscata, *Dahlb. Hym. Europ.* i. 436. 4.

Hab. Turkey.

7. Sphex fera.

Sphex fera, *Dahlb. Hym. Europ.* i. 26. 8.

Hab. Greece.

8. Sphex pruinosa.

Sphex pruinosa, *Germ. Reise Dalm.* 261. 348.
Van d. Lind, Obs. i. 94. 3.

Hab. Dalmatia.

9. Sphex bicolor.

Sphex bicolor, *Dahlb. Hym. Europ.* i. 437. 17.

Hab. Dalmatia.

10. Sphex confinis.
Sphex confinis, *Dahlb. Hym. Europ.* i. 437. 16.
Hab. Dalmatia.

11. Sphex cinereo-rufo-cincta.
Sphex cinereo-rufo-cincta, *Dahlb. Hym. Europ.* i. 438. 19.
Hab. Rhodes.

12. Sphex soror.
Sphex soror, *Dahlb. Hym. Europ.* i. 436. 7.
Hab. Rhodes.

13. Sphex sordida.
Sphex sordida, *Dahlb. Hym. Europ.* i. 436. 3.
Hab. Rhodes.

14. Sphex Solieri.
Sphex Solieri, *St. Farg. Hym.* iii. 354. 28.
Hab. ——?

15. Sphex fuscata.
Sphex fuscata, *Dahlb. Hym. Europ.* i. 25. 2.
Hab. ——?

16. Sphex fusca.
Sphex fusca, *St. Farg. Hym.* iii. 335. 2.
Hab. ——?

17. Sphex dives.
Sphex dives, *St. Farg. Hym.* iii. 359. 36.
Hab. ——?

18. Sphex hæmorrhoidalis. B.M.
Sphex hæmorrhoidalis, *Fabr. Ent. Syst.* ii. 200. 7, and *Cab. Banks. Mus. Linn. Soc.*
Pepsis hæmorrhoidalis, *Fabr. Syst. Piez.* 209. 8.
Hab. Africa.

19. Sphex castaneipes.

Sphex castaneipes, *Dahlb. Hym. Europ.* i. 27. 12 & 438.

Hab. Africa.

20. Sphex subtruncata.

Sphex subtruncata, *Dahlb. Hym. Europ.* i. 25. 6.

Hab. Africa.

21. Sphex gratiosa. B.M.

Male. Length 12 lines.—The head, antennæ, prothorax, legs and abdomen ferruginous; the meso- and metathorax black; the prothorax black beneath; the mandibles ferruginous, with their tips black; a quadrate black spot on the vertex enclosing the ocelli; the enclosed portion of the metathorax transversely and finely striated, the apical portion of the metathorax transversely sulcated; the wings dark fuscous with a violet iridescence, the tegulæ ferruginous; the petiole and extreme base of the abdomen black: beneath, the second segment has a large fuscous spot at the base.

Hab. Tripoli.

22. Sphex nigrita.

Sphex nigrita, *Lucas, Explo. Sc. Algér.* iii. 271.

Hab. Algeria.

23. Sphex affinis.

Sphex affinis, *Lucas, Explo. Sc. Algér.* iii. 272.

Hab. Algeria.

24. Sphex afra. B.M.

Sphex afra, *St. Farg. Hym.* iii. 350. 24. t. 30. f. 3 ♀.
Lucas, Explo. Sc. Algér. iii. 270. t. 14. f. 3.

Hab. Algeria (Oran).

25. Sphex trichargyra.

Sphex trichargyra, *Spin. Ann. Soc. Ent. Fr.* vii. 466. 11 (1838).

Hab. Egypt.

This is probably a highly coloured example of *Priononyx albisecta*, or certainly a closely allied species.

26. Sphex optima.

Female. Length 13 lines.—Black: the face and cheeks densely clothed with rich golden pubescence; on the vertex are scattered a few erect fuscous hairs. The prothorax, sides and hinder margin of the mesothorax above, the tubercles and a spot beneath the wings, clothed with bright golden pubescence; the mesothorax has anteriorly a central, abbreviated, impressed line which is coated with golden pubescence; the post-scutellum has a spot on each side, and the apex of the metathorax is densely clothed with short silvery-white pubescence; there is also a silvery stripe on the sides at the insertion of the posterior coxæ; the metathorax is thinly covered with a changeable glittering pile, observable in different lights; a similar pile also covers the legs; wings yellowish hyaline, their apical margins clouded, the nervures black. Abdomen red, with the petiole and three apical segments black; the third segment has on each side an oblique fuscous line which unites in the middle of the segment; the fourth segment has its apical margin narrowly and obscurely ferruginous; the apical segment rugose.

Hab. Africa (Gambia).

27. Sphex Bohemanni. B.M.

Sphex Bohemanni, *Dahlb. Hym. Europ.* i. 436. 9.

Hab. Port Natal.

28. Sphex pelopœiformis. B.M.

Sphex pelopœiformis, *Dahlb. Hym. Europ.* i. 437. 12.

Hab. Port Natal.

The specific characters given by Dahlbom in his tabular synopsis are scarcely sufficient: in the insect for which Dahlbom's name is adopted, the head and thorax have a thin cinereous pubescence, and are closely punctured, particularly the metathorax; the scape in front, four or five of the basal joints of the flagellum beneath, the clypeus more or less, the mandibles, the coxæ and trochanters, the femora and tibiæ beneath, ferruginous; the wings dark fuscous, with a violet iridescence, the hinder pair pale at their margins towards their base; the petiole elongate; the abdomen oblong and pointed at the apex.

The male has no rufous colouring, but otherwise agrees with the female.

29. Sphex Praslinus.

Sphex Praslinus, *Guér. Voy. Coq. Zool.* pt. 2. p. 262.

Hab. Port Praslin, New Ireland.

30. Sphex cinerascens.

Sphex cinerascens, *Dahlb. Hym. Europ.* i. 25. 3 & 436. 10.

Hab. Guinea.

31. Sphex Dorycus.

Sphex Dorycus, *Guér. Voy. Coq. Zool.* pt. 2. p. 262.

Hab. New Guinea.

32. Sphex pubescens.

Sphex pubescens, *Fabr. Ent. Syst.* ii. 205. 28.
Syst. Piez. 212. 22.

Hab. Guinea.

33. Sphex varipennis.

Sphex varipennis, *Reiche & Fairm. Voy. Fer. & Galin. Abyss.* t. 29. f. 5, 6.
Guér. Voy. Abyss. Lefeb. vi. 354.

Hab. Abyssinia.

34. Sphex eximia.

Sphex eximia, *St. Farg. Hym.* iii. 360. 37.

Hab. Senegal.

35. Sphex Paulinierii.

Sphex Paulinierii, *Guér. Mag. Zool.* 1843, t. 114. f. 1.

Hab. Senegal.

36. Sphex amator.

Male. Length 10 lines.—Black: the face and thorax above densely clothed with short golden pubescence; the mandibles ferruginous in the middle; the wings hyaline, the nervures fusco-ferruginous, the apical margins of the superior wings slightly clouded; the legs have a fine pale silky pile, which is very dense on the posterior tibiæ within; the abdomen has also a fine thin changeable silky pile; beneath, the two apical segments are densely covered with short golden pubescence.

Hab. Australia. (Coll. W. W. Saunders, Esq.)

37. Sphex canescens. B.M.

Female. Length 10 lines.—Black: the face covered with short silvery pubescence, and having, as well as the cheeks, a long

thin cinereous pubescence; a denuded space down the middle of the clypeus, which has a few scattered punctures, its anterior margin rounded; the mandibles rufo-piceous, their apex subacute. Thorax thinly clothed with cinereous pubescence, most sparing on the mesothorax, which is moderately punctured, the punctures most sparing on the disk, and somewhat elongate; the scutellum punctured, and having a depression in the middle; the metathorax opake and finely rugose; wings hyaline, their extreme base and apical margins slightly fuscous, the third submarginal cell much restricted towards the marginal. Abdomen ovate, shining, very convex, and with a fine cinereous pile at the base; the petiole not longer than the first segment; the apical segment rugose.

Male.—Very closely resembles the female, but has the anterior margin of the clypeus widely emarginate; the mesothorax is more closely punctured, and the abdomen not quite so shining; the two apical segments punctured.

Hab. Australia.

38. Sphex carbonaria. B.M.

Female. Length 13–15 lines.—Black: the face clothed with yellowish-white pubescence; a smooth shining space down the centre of the clypeus; the cheeks have a silvery pile, and have, as well as the vertex, a thinly scattered long white pubescence. Thorax: the pro- and mesothorax covered with silvery pubescence; when the pubescence is rubbed off, the mesothorax is found to be closely punctured, as well as the scutellum; the post-scutellum bituberculate; the metathorax clothed with white pubescence; wings hyaline, a pale fuscous spot beyond the marginal cell; the nervures ferruginous. Abdomen smooth and shining; the petiole covered with white pubescence.

Hab. Australia (Sydney).

39. Sphex clavigera.

Female. Length 11 lines.—Black: head closely and rather finely punctured, the face densely clothed with silvery pubescence; tips of the mandibles ferruginous. Thorax subopake, closely punctured; the metathorax shagreened and thinly covered with yellowish-white pubescence, the sides of the thorax and beneath have a similar pubescence; the coxæ, trochanters and femora beneath closely punctured; the legs stout and spinose, the spines short and sparing; the wings yellow-hyaline, the apical margins fuscous. Abdomen clavate, smooth and shining, covered, particularly towards the base, with a fine reflective silky pile.

Hab. Australia.

40. Sphex cognata. B.M.

Female. Length 10 lines.—Black: the face densely covered with a rich golden pubescence; the anterior margin of the clypeus produced, subangular, notched in the middle, the lateral angles of the notch produced, forming obtuse teeth. The pro- and mesothorax thinly covered with short golden pubescence; the scutellum naked, the post-scutellum and metathorax covered with silvery-white pubescence; the legs have a fine silky cinereous pile; the posterior tibiæ at their apex within have a short reddish-brown pubescence. Abdomen: the petiole short, scarcely as long as the first segment, at the base covered with a fine changeable silky pile.

Hab. Australia.

This species closely resembles *S. opulenta*, but is distinguished at once by the notch in the margin of the clypeus.

41. Sphex modesta. B.M.

Female. Length 10 lines.—Black: the face densely clothed with silvery pubescence; a denuded space down the middle of the clypeus, which is thinly covered with long stiff black hairs; the mandibles elongate and very acute at their apex. The prothorax with a silvery pubescence, that on the sides of the mesothorax is of the same colour; the disk of the mesothorax and the scutellum closely punctured; the metathorax finely transversely rugose and covered with yellowish-white pubescence; wings hyaline, the anterior pair yellow towards their base, their apex faintly clouded, a fuscous spot beyond the apex of the marginal cell; the extreme base of the wings dark fuscous. Abdomen very smooth, shining and impunctate.

Hab. Australia.

42. Sphex vestita.

Female. Length 13 lines.—Black: the face densely clothed with short golden pubescence; the cheeks have a thin cinereous pile and also some scattered long pale hairs; the vertex and face have a thinly scattered pale pubescence; the mandibles large and prominent, furnished with a stout tooth inside and fringed beneath with long pale hairs. The thorax densely clothed above with golden pubescence, which is more or less obliterated on the scutellum, the latter with a deep central impressed line; the sides of the metathorax and breast covered with golden pubescence; the thorax has a thin golden pile beneath; wings hyaline, faintly clouded at their apical margins, the nervures dark ferruginous. Abdomen blue-black; the first segment and the petiole thinly

covered with golden pile; the second segment opake, with its apical margin and also the following segments smooth and shining.

Hab. Australia. (Coll. F. Smith.)

43. Sphex vidua.

Male. Length 8–8½ lines.—Black: the face and cheeks densely clothed with short bright silvery pubescence; the head, thorax and petiole with long erect yellowish-white pubescence; the mesothorax and scutellum closely punctured; the metathorax, the sides and thorax beneath, finely rugose; wings hyaline, their apex with a fuscous marginal cloud; the nervures black. Abdomen: the petiole rather longer than the first segment, slightly shining and covered with a changeable fine silky pile.

Hab. Australia. (Coll. W. W. Saunders, Esq.)

This is probably the male of *opulenta*.

44. Sphex fumipennis. B.M.

Female. Length 10–12 lines.—Black and shining: the face strongly punctured, the vertex sparingly and more finely so; the face covered more or less with silvery pile, and having a number of stiff black hairs on the clypeus. The pro- and mesothorax, as well as the scutellum, moderately punctured; a finely impressed line on each side of the mesothorax over the tegulæ; the metathorax opake and thinly covered with griseous pubescence, that on the prothorax, the sides, and beneath, is a mixture of fuscous and griseous; the legs shining; the spines on the tibiæ short and stout; the tarsi strongly spinose, the anterior tarsi ciliated outside; wings dark fuscous, with the apical margins and also the hinder margins of the posterior pair subhyaline. Abdomen glossy, the apical segment rugose.

The male only differs in being smaller.

Hab. Australia (Adelaide).

45. Sphex ephippium, n. s. Pl. VI. fig. 3. B.M.

Female. Length 12 lines.—Black: the face densely covered with pale golden pubescence, with a denuded space down the middle of the clypeus; the face thinly sprinkled with long hairs, pale at their base and fuscous at their apex; the mandibles rounded at their apex; a spot of golden pile behind each of the posterior ocelli on the margin of the vertex; the cheeks with a silvery pile and a thin covering of long cinereous pubescence. The prothorax, the tubercles, a spot beneath the wings, and the mesothorax above, covered with fine, short, pale golden pubes-

cence; the scutellum and post-scutellum naked, the latter notched in the middle; the metathorax very densely clothed with long silvery pubescence; wings hyaline, the nervures fusco-ferruginous, the base of the wings and the costal cell fuscous, the apex of the anterior wings with a fuscous cloud. Abdomen smooth, shining and impunctate.

Hab. Australia (Port Essington).

This is possibly the female of *S. opulenta*; but, not coming from the same locality, they are separated.

46. Sphex opulenta. B.M.

Male. Length 10½ lines.—Black: the face densely clothed with bright golden pubescence, that on the cheeks is less dense and paler; the mandibles acute at their apex. The pro- and mesothorax above clothed with golden pubescence, the post-scutellum has a similar clothing; the sides of the thorax and the pectus have a thin pale pubescence; the metathorax very densely clothed with silvery-white pubescence; the legs have a changeable thin silvery pile; wings hyaline, smoky at the base, slightly clouded at their apical margins, and having a fuscous spot beyond the marginal cell. Abdomen subopake, with a thin changeable iridescent pile; the petiole covered with silvery-white pubescence.

Hab. Australia (Richmond River).

47. Sphex luctuosa. B.M.

Female. Length 13–15 lines.—Black and shining: the face covered with a thin fine silvery pile and a long stiff black pubescence; the cheeks have a silvery pile and a thin long fuscous pubescence; on the vertex the pubescence is long, thin and cinereous. The thorax, except the mesothorax above and the scutellum, thinly covered with short cinereous pubescence; the metathorax opake, finely rugose; the mesothorax and scutellum very delicately punctured; the legs shining black, the tibiæ and tarsi strongly spinose; the wings hyaline, dark fuscous at their base and along the outer margin of the externo-medial cell; the anterior wings are fuscous at their apical margins beyond the enclosed cells. Abdomen very smooth and shining, impunctate, and having a violet iridescence.

The male only differs in being smaller and in having the legs less spinose.

Hab. Australia (Swan River).

This species very closely resembles the *Sphex argentata* of Dahlbom, but in that species the mesothorax is opake, the

puncturing being stronger and very close; the metathorax is proportionably shorter. In the present species the first recurrent nervure unites with the second transverse cubital nervure, which is not the case in *S. argentata*; the colouring of the wings is the same in both species.

48. Sphex obscurella.

Female. Length 8 lines.—Black: the face densely clothed with silvery pubescence; the vertex shining, with scattered punctures, and having, as well as the cheeks, a long sparing pale yellowish-white pubescence; the thorax has a similar pubescence to the head, but it is more dense; the coxæ and femora are also pubescent; the wings hyaline, with a fuscous cloud at the apex of the anterior pair; the nervures fusco-ferruginous; the second submarginal cell subquadrate, rather longer than broad, receiving the first recurrent nervure about one-fourth from its apex, the third submarginal cell slightly restricted towards the marginal. Abdomen covered with a fine short silky pile; the petiole pubescent, nearly as long as the first and second segments.

The male closely resembles the female, but is more thickly pubescent, and the abdomen is more densely clothed with silky pile.

Hab. Van Diemen's Land. (Coll. F. Smith.)

This species most closely resembles *S. canescens*, but is at once distinguished by the form of the submarginal cells and by having a longer petiole.

49. Sphex globosa. B.M.

Female. Length 7 lines.—Black: the head and thorax opake; the face covered with pale golden pubescence, leaving an angular denuded space on the clypeus, which is shining and has a few scattered punctures; the mandibles ferruginous, their apex black; the cheeks, thorax and legs have a short silky cinereous pile, the two former have also a thinly scattered pale glittering pubescence; the wings hyaline, their nervures rufo-fuscous; the mesothorax has a central abbreviated shallow groove anteriorly, and a slight scratch on each side over the tegulæ; the scutellum prominent, emarginate in the middle; the metathorax finely transversely rugose; the anterior tarsi strongly ciliated outside, the claws ferruginous. The petiole of the abdomen nearly as long as the two basal segments; the abdomen is globose and very smooth and shining, the base and the sides with short silvery-white pubescence; the apical margins of the segments narrowly rufo-piceous.

The male exactly corresponds with the female, but is usually smaller.

Hab. Van Diemen's Land.

This species has the appearance of a *Prionomyx*, but the claws are only furnished with two teeth.

50. SPHEX ANTENNATA. B.M.

Male. Length 8 lines.--Black: the face has a silvery pubescence and a mixture of long black hairs; the mandibles ferruginous towards their apex. The thorax has a scattered yellow pubescence; the mesothorax and scutellum evenly punctured, the former with a central abbreviated channel in front and a slight scratch over each tegula; the wings fuscous, the nervures black; the petiole short, the abdomen oblong-ovate.

Hab. New Hebrides (Aneiteum).

The specimen described is not in good condition, being evidently denuded of pubescence; but it may be distinguished by the form of its antennæ, which are very slender at the base and gradually thickened towards the apex.

51. SPHEX RUFIPENNIS. B.M.

Sphex rufipennis, *Fabr. Ent. Syst.* ii. 201. 10.
St. Farg. & Serv. Encycl. Méth. x. 462.
St. Farg. Hym. iii. 334. 1.
Dahlb. Hym. Europ. i. 436. 6.
Pepsis rufipennis, *Fabr. Syst. Piez.* 210. 12.

Hab. India? (*Fabr. l. c.*). Brazil.

Although several extensive collections have been examined, no species from India has been found agreeing with the description of *S. rufipennis*, but most collections contain Brazilian species which do agree with it; it is therefore probable that the habitat given by Fabricius—Tranquebar—is an error, and it is rendered more so from the circumstance of the typical specimen being in the collection of Lund, who collected in Brazil.

52. SPHEX ARGENTATA. B.M.

Sphex argentata, *Dahlb. Hym. Europ.* i. 25. 1.
Sphex albifrons, *St. Farg. Hym.* iii. 337. 6 ♂.
Sphex argentifrons, *St. Farg. Hym.* iii. 337. 7 ♀.

Hab. Greece; India (Bengal; Madras; Punjaub; Sumatra); Java; N. America (St. John's Bluff, East Florida); Africa (Congo; Sierra Leone).

This may possibly be the *Pepsis albifrons* of Fabricius, but the description only points out the dark base of the wings, whereas the apex is dark also. The *Sphex argentifrons* of St. Fargeau is the female, in which sex the metathorax is more distinctly striated than in the male: the species has a wide geographical range.

53. Sphex vicina. B.M.

Sphex vicina, *St. Farg. Hym.* iii. 343. 16.

Hab. India.

54. Sphex Fabricii. B.M.

Sphex Fabricii, *Dahlb. Hym. Europ.* i. 27. 11 & 438. 21.

Hab. India; Tranquebar.

55. Sphex ferruginea. B.M.

Sphex ferruginea, *St. Farg. Hym.* iii. 345. 18.

Hab. India.

Amongst a number of specimens of this species from the Philippine Islands and others from Ceylon, some have the abdomen entirely black; this variety is probably the *Sphex sericea* of Fabricius.

56. Sphex flavo-vestita. B.M.

Male. Length 12 lines.—Black: the head thinly covered with yellow pubescence, the face densely clothed with golden pubescence; the mandibles ferruginous, their base and apex black; the apical joints of the palpi ferruginous, one or two of the basal ones fuscous. Thorax thickly clothed with yellow pubescence; the prothorax above, the sides of the disk of the mesothorax, and the apex of the metathorax, densely covered with golden pubescence; the anterior coxæ and femora beneath are also covered with golden pubescence; the anterior femora, except their base, and all the tibiæ, tarsi and knees pale ferruginous; the apex of the claw-joint and the claws black; the wings yellowish-hyaline, the nervures pale ferruginous, the costal and postcostal nervures fuscous. Abdomen black with a blue tinge, and covered with a fine silky yellow pile.

Hab. India.

57. Sphex apicalis. B.M.

Female. Length 13 lines.—Black: the pubescence on the head and thorax black, most dense on the face and cheeks; the

face covered with bright golden pile. The head and thorax finely punctured, most sparing on the disk of the mesothorax; the metathorax most strongly and closely punctured, the punctures confluent; wings fusco-hyaline, smoky towards their base, the apical margins faintly clouded; the nervures rufo-testaceous, the costal, post-costal, the externo-medial and anal nervures dark fuscous; the first and second segments of the abdomen black; the apical margin of the second and the following segments yellow, with a bright golden pile.

Hab. Sumatra.

58. SPHEX LINEOLA. B.M.

Sphex lineola, *St. Farg. Hym.* iii. 353. 27.

Hab. Java; Sumatra; Hong Kong; North China.

59. SPHEX NIGRIPES. B.M.

Female. Length 9–10 lines.—Opake-black: the head and thorax thinly sprinkled with black pubescence; wings fusco-hyaline, dark fuscous towards the base, with a yellowish tinge in the middle and fuscous at their apex; the nervures rufo-testaceous, towards the base of the wings they are darker; the femora and tibiæ ferruginous; the tarsi black.

Hab. Sumatra; North China (Shanghai).

Some specimens from Sumatra have only the posterior femora ferruginous; those from China are similarly coloured; the wings in some examples are darker than in others.

60. SPHEX FORMOSA. B.M.

Female. Length 10 lines.—Black: the face densely clothed with bright golden pubescence, the cheeks have also a golden pubescence, and the head a scattered long golden-yellow pubescence. The thorax is covered with golden pubescence of a rather paler colour than that on the face, the scutellum and a space beneath the wings usually naked, the pubescence densest on the metathorax; the legs covered with a fine silky pile; the wings fusco-hyaline, their apical margins fuscous, the nervures rufo-fuscous. Abdomen: the petiole about the length of the first segment; the abdomen has a blue tinge and is covered with a delicate silky pile.

Hab. Ceram. (Coll. Madame Ida Pfeiffer.)

61. Sphex maura. B.M.

Female. Length 11 lines.—Black: the face covered with short silvery pubescence, and thickly set with long black hairs; the thorax thinly covered with black pubescence, which is most dense on the metathorax; the thorax shining above, finely and sparingly punctured; the post-scutellum notched in the middle; the metathorax very finely transversely striated; the wings dark fuscous, with a violet iridescence; the abdomen smooth, shining and impunctate.

The male exactly corresponds with the female.

Hab. Celebes.

62. Sphex sericea. B.M.

Pepsis sericea, *Fabr. Syst. Piez.* 211. 19.
Sphex sericea, *Dahlb. Hym. Europ.* i. 26. 7. var.?
St. Farg. Hym. iii. 341. 12.

Hab. Islands of the Pacific; Philippine Islands; Java.

This species varies in having the scutellum black or red.

63. Sphex nigella. B.M.

Female. Length 8 lines.—Black: the head, thorax and petiole with a thin griseous pubescence; the face densely covered with bright silvery pile; the anterior margin of the clypeus has two approximate short teeth in the middle; the mandibles very smooth and shining. Thorax: the disk opake, very delicately punctured, the metathorax finely rugose; the wings subhyaline, slightly clouded at their apical margins, the nervures rufo-testaceous. Abdomen covered with a fine silky pile; the petiole as long as the two basal segments and curved upwards.

Male.—Closely resembles the female, but without teeth on the margin of the clypeus; the mandibles ferruginous and shining as in the other sex.

Hab. Shanghai.

64. Sphex perplexa. B.M.

Male. Length 10 lines.—Black: the face covered with silvery pubescence; the head and thorax with a sparing black pubescence; the thorax finely rugose, the metathorax transversely so; the wings fusco-hyaline, their apical margins clouded. Abdomen very smooth and shining, the base of the first segment ferrugi-

nous, the apical margins of three or four of the basal segments narrowly rufo-piceous.

Hab. North China (Shanghai). (Coll. R. Fortune, Esq.)

This insect so closely resembles the male of *S. emarginata*, that, with the exception of the pale margins of the segments of the abdomen, there is scarcely another specific difference; both have the second submarginal cell narrow, which receives the first recurrent nervure in the middle.

65. Sphex Mandarinia. B.M.

Female. Length 13 lines.—Black: the face covered with fine silvery pile; the anterior margin of the clypeus straight in the middle and sinuated at the sides; the vertex smooth and having a few scattered punctures; a few stiff black hairs scattered over the face. Thorax: the pro- and mesothorax very delicately punctured, interspersed with a few large punctures; a deep depression in the middle of the scutellum; the post-scutellum and metathorax opake, the enclosed space above, finely rugose, the sides beyond obliquely strigose; the claws ferruginous; the tarsi furnished with stout spines, the anterior pair strongly ciliated outside; the tibiæ with a few stout spines; the wings subhyaline, the nervures ferruginous, the apical margins slightly clouded; the second submarginal cell narrow, receiving the first recurrent nervure in the middle. Abdomen red, with the petiole and three apical segments black.

Hab. North China (Shanghai). (Coll. R. Fortune, Esq.)

This species may possibly be the *S. Solieri* of St. Fargeau.

66. Sphex cyaniventris.

Pelopœus cyaniventris, *Guér. Voy. Coq. Zool.* pt. 2. p. 263, *Atlas*, t. 8. f. 15.

Sphex? cyaniventris, *Spin. Gay's Chili*, vi. 400. 4.

Hab. Brazil; Chili. (Coll. W. W. Saunders, Esq.)

67. Sphex aurifluus. B.M.

Sphex aurifluus, *Perty, Del. An. Art.* p. 142. t. 37. f. 19.
Sphex ornata, *St. Farg. Hym.* iii. 344. 17.

Hab. Brazil (Rio Negro); Jamaica; Cuba.

68. Sphex Lanierii. B.M.

Sphex Lanierii, *Guér. Icon. Règ. Anim. Ins.* iii. 433. t. 70. f. 2.

Hab. Cuba; Brazil.

69. Sphex melanopa.

Sphex melanopa, *Dahlb. Hym. Europ.* i. 27. 13.

Hab. Brazil.

70. Sphex fuliginosa.

Sphex fuliginosa, *Dahlb. Hym. Europ.* i. 25. 5.

Hab. Brazil.

71. Sphex chrysobapta.

Female. Length 8 lines.—Black: the head and thorax covered with bright golden pubescence, exceedingly brilliant in different lights; the wings subhyaline, the nervures ferruginous; the anterior margins of the superior pair have a broad reddish-yellow stain; the legs fusco-ferruginous, the femora bright ferruginous above, and the tibiæ outwardly so; the apical joint of the tarsi dusky; the legs and abdomen covered with a fine reflective silky golden pile; the petiole as long as the two basal segments, ferruginous, as well as the apical margins of all the segments.

Hab. Brazil. (Coll. F. Smith.)

72. Sphex clypeata. B.M.

Male. Length 10 lines.—Black: the face covered with silvery pubescence and sprinkled with long black hairs; the clypeus very convex, produced anteriorly, its margin truncated; the thorax has a thinly scattered black pubescence; the wings fusco-hyaline; the nervures and extreme base of the wings dark fuscous, the apical margins with a pale fuscous cloud. The abdomen shining and covered with a fine grey silky pile; the apex fringed with curled yellow pubescence; the two apical segments beneath densely covered with similar pubescence.

Hab. Brazil.

73. Sphex ingens. B.M.

Female. Length 18–20 lines.—Black: the head opake, thinly clothed with black pubescence; the clypeus has a few scattered punctures, margined in front, the margination obscurely ferruginous; the mandibles rugose towards their base; the palpi fuscous, with the tips of the joints pale ferruginous. Thorax clothed above with black pubescence, densely so on the metathorax; on the disk of the mesothorax is a short velvety pubescence; the anterior femora have an obscure ferruginous stripe beneath at their apex; wings rufo-fuscous, subhyaline, darkest at their

base, the apical margins of the anterior pair slightly clouded, the nervures fusco-ferruginous. Abdomen elongate-ovate, subopake; the petiole short, about the length of the first segment, and having an obscure green or blue tinge.

Male. Length $1\frac{3}{4}$–2 inches.—Closely resembling the female, but having a silvery pubescence on the face and sides of the clypeus; the mandibles ferruginous in the middle; the thorax densely pubescent, more so than in the other sex; the posterior coxæ very pubescent; the anterior and intermediate femora more or less ferruginous beneath; the intermediate segments of the abdomen have their basal margins frequently more or less ferruginous. In this species the first recurrent nervure nearly unites with the second transverso-medial nervure, and the third submarginal cell is very much restricted towards the marginal cell.

Hab. Brazil.

74. Sphex proxima. B.M.

Female. Length 11 lines.—Black: the face thinly covered with golden pubescence, most dense on the sides; the face and cheeks have a thin long pale yellow pubescence: the mandibles sculptured externally with longitudinal striæ. Thorax: the pro- and mesothorax above are covered with a very short black velvety pubescence, the metathorax thinly covered with cinereous pubescence; the wings dark fuscous with a violet iridescence. Abdomen ferruginous, with the petiole and base of the fifth segment black; the sixth segment and the apical margin of the fifth rugose.

Hab. Brazil.

This species most closely resembles the *Pepsis Crucis* of Fabricius, but the colour of its pubescence and wings, and also its striated mandibles, easily distinguish it.

75. Sphex costipennis.

Sphex costipennis, *Spin. Mem. Accad. Torino*, xiii. 54. 35 (1853).

Hab. Brazil (Para).

76. Sphex difficilis. B.M.

Sphex difficilis, *Spin. Mem. Accad. Torino*, xiii. 54. 36 (1853).

Hab. Brazil (Para).

77. Sphex nitidiventris. B.M.

Sphex nitidiventris, *Spin. Mem. Accad. Torino*, xiii. 53. 34 (1853).

Hab. Brazil (Para).

78. Sphex petiolata. B.M.

Male. Length 7 lines.—Black: the face covered with golden pubescence, also a little at the outer orbit of the eyes; the tips of the mandibles ferruginous. Thorax thinly covered with short golden pubescence; wings subhyaline, the nervures ferruginous; the anterior pair have a fuscous cloud extending along their front margin from base to apex; this cloud varies in depth of colouring in different examples; the tegulæ rufo-testaceous; the legs ferruginous; the femora with a black stripe behind, the tibiæ with one within, the tarsi fuscous or black with the tips of the joints ferruginous, the claws ferruginous at the base. Abdomen: the petiole as long as the two basal segments, sometimes slightly ferruginous at the base above; the first segment ferruginous, with a dark macula above in the middle, sometimes with several smaller spots; the apical margins of the segments rufo-piceous.

Hab. Brazil (Para). (Coll. H. W. Bates.)

This is very probably the male of the *S. costipennis* of Spinola.

79. Sphex cyanipennis.

Sphex? cyanipennis, *Fabr. Ent. Syst.* ii. 200. 6.
Pepsis cyanipennis, *Fabr. Syst. Piez.* 209. 7.

Hab. Cayenne; Brazil. (Coll. F. Smith.)

80. Sphex Crucis. B.M.

Pepsis Crucis, *Fabr. Syst. Piez.* 209. 4.
Sphex Crucis, *St. Farg. Hym.* iii. 342. 14.

Hab. South America (Cayenne).

81. Sphex dorsalis. B.M.

Sphex dorsalis, *St. Farg. Hym.* iii. 347. 20 ♂.

Hab. Cayenne; Brazil (Ega and Santarem).

The female closely resembles the male, having the thorax and head richly decorated with golden pubescence; the legs and abdomen red, with the coxæ, petiole, the posterior margin of the third segment of the abdomen, the fourth and fifth, black; tip of the abdomen red.

82. Sphex Chiliensis.

Sphex Chiliensis, *St. Farg. Hym.* iii. 341. 13.

Hab. Chili.

83. Sphex Latreillii. B.M.

Sphex Latreillii, *St. Farg. Mag. Zool.* t. 33 ♂ (1831) ; *Hym.* iii. 361. 38.
Dahlb. Hym. Europ. i. 27. 14 & 438. 24.
Spin. Gay's Chili, vi. 397. 1.
Sphex Thunbergii, *St. Farg. Mag. Zool.* t. 34 ♀ (1831); *Hym.* iii. 362. 39.

Hab. Chili; Valparaiso.

84. Sphex melæna.

Sphex melæna, *Spin. Gay's Chili*, vi. 398. 2.

Hab. Chili.

85. Sphex Spinolæ.

Sphex Chiliensis, *Spin. Gay's Chili*, vi. 399. 3 (nec *St. Farg.*).

Hab. Chili. (Coll. F. Smith.)

86. Sphex opaca.

Sphex opaca, *Dahlb. Hym. Europ.* i. 437. 14.

Hab. South America.

87. Sphex Johannis.

Pepsis Johannis, *Fabr. Syst. Piez.* 208. 3.

Hab. South America.

This is probably the *Priononyx striata* of this Catalogue. See the remarks following that species, p. 266.

88. Sphex rufipes. B.M.

Sphex rufipes, *St. Farg. Hym.* iii. 343. 15.

Hab. St. Domingo (Port-au-Prince).

89. Sphex T.

Pepsis T, *Pal. de Beauv. Ins.* p. 117. t. 3. f. 5.

Hab. St. Domingo.

90. Sphex Jamaicensis.

Vespa Jamaicensis, *Drury, Ill. Exot. Ins.* i. 104. t. 44. f. 4.

Hab. Jamaica.

91. Sphex caliginosa.

Sphex caliginosa, *Erichs. Faun. und Fl. Brit. Guiana*, iii. 589.

Hab. British Guiana.

92. Sphex latro.

Sphex latro, *Erichs. Faun. und Fl. Brit. Guiana*, iii. 588.

Hab. British Guiana.

93. Sphex singularis. B.M.

Male. Length 9 lines.—Black: the face densely covered with golden pubescence, the vertex and cheeks with a long thin pale yellow pubescence. Thorax clothed with long thin pale golden pubescence; the prothorax above, the post-scutellum, and an epaulet over the tegulæ of short bright golden pile; the legs with a fine changeable silky pile, most dense on the coxæ and posterior tibiæ within; the wings hyaline, with a pale fuscous cloud at their apical margins and a darker one beyond the marginal cell; the third submarginal cell subpetiolate. The abdomen has an obscure chalybeous tinge, with a little silky pile at the base.

Hab. Honduras.

94. Sphex Pennsylvanica. B.M.

Sphex Pensylvanica, *Linn. Syst. Nat.* i. 941. 3.
De Geer, Ins. iii. 586. 2. t. 30. f. 2.
Fabr. Syst. Ent. 346. 3; *Ent. Syst.* ii. 201. 11.
Pal. de Beauv. Ins. Afric. et Amér. p. 116. t. 3. f. 4.
Dahlb. Hym. Europ. i. 25. 4.
St. Farg. Hym. iii. 335. 3.
Pepsis Pensylvanica, *Fabr. Syst. Piez.* 211. 15.
Sphex Servillei, *St. Farg. Hym.* iii. 336. 5 ♂.

Hab. North America; Pennsylvania.

95. Sphex ichneumonea. B.M.

Sphex ichneumonea, *Linn. Syst. Nat.* i. 959. 36.
De Geer, Ins. ii. 759. t. 32. f. 13. 17.
Fabr. Ent. Syst. ii. 207. 34.
Dahlb. Hym. Europ. i. 26. 10.
St. Farg. Hym. iii. 346. 19.
Erichs. Faun. und Fl. Brit. Guiana, iii. 589.
Chlorion ichneumoneum, *Fabr. Syst. Piez.* 219. 6.

Hab. North America; St. John's Bluff, East Florida; South Carolina.

96. Sphex Philadelphica.

Sphex Philadelphica, *St. Farg. Hym. Europ.* i. 340. 11.

Hab. Philadelphia.

97. Sphex tibialis.

Sphex tibialis, *St. Farg. Hym. Europ.* i. 339. 10.

Hab. Philadelphia. (Coll. W. W. Saunders, Esq.)

98. Sphex violaceipennis.

Sphex violaceipennis, *St. Farg. Hym.* iii. 349. 22.

Hab. Philadelphia.

99. Sphex crœsus.

Sphex crœsus, *St. Farg. Hym.* iii. 351. 25.

Hab. North America; Mexico. (Coll. F. Smith.)

100. Sphex dimidiata.

Sphex dimidiata, *St. Farg. Hym.* iii. 352. 26.

Hab. North America.

101. Sphex elegans. B.M.

Male. Length 7 lines.—Black: the face covered with a short rich golden pubescence, and sprinkled with long hairs of the same colour; the mandibles ferruginous at their apex. Thorax thinly covered with erect golden hairs; the mesothorax and scutellum evenly punctured; the metathorax opake; wings yellow-hyaline, with a pale fuscous cloud at their apical margins, and a darker one beyond the marginal cell; the nervures pale ferruginous; the knees, tibiæ and tarsi pale ferruginous; the tips of the claws black. Abdomen smooth and shining, with the apical margins of the segments obscurely rufo-testaceous; sometimes the two basal segments are ferruginous, with the base of the first, and base and apex of the second, black.

Hab. California.

102. Sphex apicalis. B.M.

Sphex apicalis, *Harris, Cat. Ins. Massach.*

Male. Length 6–8 lines.—Black: the face covered with short silvery pubescence, and sprinkled with a mixture of long fuscous and pale hairs; the mandibles slightly ferruginous at their inner margin towards their apex; the vertex is shining, sparingly and

finely punctured, and thinly covered, as well as the cheeks, with long cinereous pubescence. Thorax: the mesothorax and scutellum shining and evenly punctured; the metathorax opake and rather finely rugose; the thorax, coxæ and femora, as well as the petiole of the abdomen, thinly covered with erect cinereous pubescence; wings fusco-hyaline, the apical margins, as well as the anterior margin of the superior pair, with a darker fuscous cloud; the petiole as long as the two basal segments of the abdomen; the latter has a slight chalybeous tinge, and in some examples the apical margins of the segments are more or less pale testaceous.

Hab. East Florida (St. John's Bluff); Georgia.

103. Sphex flavipes.

Female. Length 13 lines.—Black: the face densely clothed with golden pubescence; the basal half of the mandibles ferruginous; the labrum has a central longitudinal carina, its apical margin is rounded. Thorax opake; the posterior margin of the prothorax, the hinder margin of the tubercles, an opaulet over the tegulæ, the post-scutellum and apex of the metathorax, covered with short bright golden pubescence; the metathorax is thinly clothed with yellow pubescence; the wings dark fuscous; the tibiæ, tarsi and knees of a reddish-yellow, the spines of the same colour. Abdomen opake, covered with a fine reflective silky pile.

Hab. Georgia. (Coll. F. Smith.)

This species resembles the *Sphex tibialis* of St Fargeau, but that insect has fuscous pubescence on the head and thorax, and the spines on the legs are black.

104. Sphex instabilis.

Female. Length 9 lines.—Black: the face covered with pale golden pubescence, and sprinkled, as well as the cheeks, with longer pale pubescence; the mandibles ferruginous at the base. The pro- and mesothorax above are covered with a fine golden pile; the metathorax clothed with pale golden pubescence, the apex densely so; wings yellow-hyaline, the apical margins of the superior pair have a broad dark fuscous border, the apex of the inferior pair faintly clouded, the nervures pale testaceous; the intermediate and posterior tibiæ and tarsi fusco-ferruginous; in some examples they are bright ferruginous, as well as the posterior femora. The abdomen covered with a fine silky pile; in some examples the petiole is ferruginous.

Hab. North America.

Genus 11. HARPACTOPUS.

F. Smith, MSS.

This genus is formed for the reception of those species which differ from the typical *Sphex* in the following particulars.

The second submarginal cell is narrowed towards the marginal and receives the first recurrent nervure towards the base; the second recurrent nervure is received by the third submarginal cell, a little within; the legs elongate, the tarsi densely spinose; the claws bidentate, the anterior pair with dense long cilia outside; the abdomen ovate, abruptly convex at the base, pointed at the apex.

1. Harpactopus crudelis, n. s. Pl. VI. fig. 4. B.M.

Female. Length 12 lines.—Black: the face covered with silvery pubescence, and sprinkled with stiff bristly hairs; the cheeks and margin of the vertex have a black pubescence; the clypeus with a notch in the middle of the anterior margin, and having a longitudinal impressed line not quite extending to its base. The prothorax covered above with silvery pubescence; the mesothorax and scutellum roughly punctured, the latter is rugose-striate behind; the metathorax thickly clothed with black pubescence, and coarsely rugose; a raised acute tubercle in the middle of the post-scutellum, behind abruptly truncated; the legs elongate, stout and thickly spinose, particularly the tarsi; the anterior pair strongly ciliated outside; the claw-joint large, and set with strong bristles; wings yellow-hyaline, their outer margins hyaline, the apex of the anterior pair fuscous. Abdomen ovate, the apex acute, very convex, abruptly so at the base, and very smooth and shining.

Hab. Madras.

2. Harpactopus tyrannus. B.M.

Female. Length 12 lines.—Black: the face has an indistinct silvery pubescence, that on the cheeks is black; the face thickly covered with stiff black hairs; the vertex rather finely punctured. Thorax rugose-punctate; the scutellum longitudinally strigose behind, sparingly punctured in front and slightly depressed in the middle; the post-scutellum with an elevated compressed tubercle in the middle; the metathorax abruptly truncated, and covered with long sooty-black pubescence; the legs as in *H. crudelis*; wings dark fuscous, their apical margins broadly subhyaline. Abdomen smooth and shining, the base subtruncate or abruptly elevated, very convex, acute at the apex.

Hab. Port Natal.

3. Harpactopus sævus. B.M.

Female. Length 8–11 lines.—Black: the face densely covered with bright silvery pubescence; the clypeus sprinkled with stiff black bristly hairs; the vertex and cheeks have a thin cinereous pubescence. The pro- and mesothorax covered with pale golden pubescence; the metathorax transversely rugose; the wings hyaline, with more or less of a yellow tinge, their apical margins slightly clouded; the nervures pale rufo-testaceous; the tarsi thickly spined, the anterior pair strongly ciliated outside. Abdomen subglobose, very convex, with the petiole a little longer than the first segment.

The male only differs in being smaller and more pubescent.

Hab. Australia (Swan River; Cape Upstart).

4. Harpactopus nivosus. B.M.

Female. Length 10–13 lines.—Ferruginous: the head, tips of the mandibles and flagellum black; the head, thorax, coxæ and base of the femora densely clothed with snow-white short silky pubescence; the other parts of the legs have a thin white pile; the spines at the apex of the tibiæ black, those on the tibiæ and tarsi are a mixture of black and red ones; the wings hyaline, the nervures fusco-ferruginous, the tegulæ ferruginous; the post-scutellum with a slightly raised tubercle in the middle. Abdomen: the petiole and first segment covered with snow-white pubescence; the apical margins of the segments pale rufo-testaceous.

Hab. Northern India.

Genus 12. PRIONONYX.

Sphex, pt., *Fabr. Ent. Syst.* ii. 198 (1793).
Pepsis, pt., *Fabr. Syst. Piez.* 207 (1804).
Priononyx, *Dahlb. Hym. Europ.* i. 28 (1843).

This genus differs from the genus *Sphex* in having the claws quadridentate beneath at their base; the neuration of the wings and the form of the abdomen are the same as in *Harpactopus*.

1. Priononyx Thomæ. B.M.

Sphex Thomæ, *Fabr. Ent. Syst.* ii. 199. 4.
Pepsis Thomæ, *Fabr. Syst. Piez.* 209. 5.
Priononyx Thomæ, *Dahlb. Hym. Europ.* i. 28. 1.

Hab. South America; Island of St. Thomas; Jamaica; Brazil (Santarem); South Carolina; East Florida.

Many of the examples of this species have the wings hyaline or subhyaline; this is the case in all from Brazil and in others from California; examples from Jamaica have them fuscous; beyond the difference in the colouring of the wings no specific distinction has been detected.

2. Priononyx atrata. B.M.

Sphex atrata, *St. Farg. Hym.* iii. 355. 30.

Hab. North America.

St. Fargeau described this species from a specimen in Serville's Collection, its locality being unknown: it is the *Sphex labrosa* of Harris's Catalogue.

3. Priononyx Doumerci.

Sphex Doumerci, *St. Farg. Hym.* iii. 357. 33.

Hab. Cayenne; Brazil.

4. Priononyx striata. B.M.

Female. Length 10–11 lines.—Black: the face covered with silvery pile, and having, as well as the cheeks, a number of long white hairs; the anterior margin of the clypeus with a small notch in the middle. The mesothorax longitudinally finely strigose, the metathorax transversely so, and covered thinly with short cinereous pubescence; the scutellum bituberculate; the tibiæ and tarsi strongly spinose; the anterior tarsi with long cilia outside; the wings black, with a violet iridescence, their apical margins palest. Abdomen ferruginous, with the petiole black.

The male only differs in being smaller.

Hab. Brazil (Para; Villa Nova). (Coll. H. W. Bates.)

This is probably the *Pepsis Johannis* of Fabricius, and also the *Sphex Doumerci* of St. Fargeau; the former, however, does not notice the striation of the thorax, but points out the emargination of the scutellum, which is described here as bituberculate: St. Fargeau does not notice the form of the scutellum, but describes the *metathorax* as being transversely striated; the *mesothorax* he does not mention. Under these circumstances we have given another name and description to the species.

5. Priononyx Ægyptia.

Sphex Ægyptia, *St. Farg. Hym.* iii. 356. 32.

Hab. Egypt.

Genus 13. PARASPHEX.

Enodia, *Dahlb. Hym. Europ.* i. 28 (1843), nec *Hübn. Lepidop.* (1816).

This genus is distinguished from *Sphex* proper by having the claws of the tarsi tridenticulate; the body is of a more slender and graceful form; the abdomen is more elongate and narrow, and very acute or lanceolate at the apex. It forms a distinct subgeneric division of the typical *Sphex*.

1. Parasphex fervens. B.M.

Sphex fervens, *Fabr. Ent. Syst.* ii. 200. 5 (nec *Linn.*).
Pepsis fervens, *Fabr. Syst. Piez.* 209. 6.
Pepsis pubescens, *Fabr. Syst. Piez.* 212. 22.
Enodia canescens, *Dahlb. Hym. Europ.* i. 28. 2.
Enodia fervens, *Dahlb. Hym. Europ.* i. 439. 2.
Priononyx fervens, *Erichs. Faun. und Fl. Brit. Guiana*, iii. 589.

Hab. India (Madras; N. Bengal); Africa (Sierra Leone; Gambia; Cape of Good Hope).

The typical specimen of *P. fervens* is in the Banksian Cabinet; it is from India. The African specimens appear to be the *Pepsis pubescens* of Fabricius.

2. Parasphex albisecta. B.M.

Sphex albisecta, *St. Fargeau & Serv. Encycl. Méth.* x. 462. 2.
Ammophila Kirbii, *Van d. Lind, Obs.* i. 90. 7.
Sphex trichargyra, *Spin. Ann. Soc. Ent. Fr.* vii. 466. 11 (1838).
Enodia albisecta, *Dahlb. Hym. Europ.* i. 28. 1 & 438. 1.

Hab. South of France; Piedmont; Montpellier; Albania; Africa (Oran; Port Natal; Cape).

3. Parasphex marginata. B.M.

Female. Length 6½–8 lines.—Black: the scape and two basal joints of the flagellum more or less, as well as the mandibles, ferruginous, the latter black at their tips; the face and cheeks clothed with silvery pubescence; the thorax and coxæ thinly covered with short silvery-white pubescence; the meso- and metathorax nearly naked, the former with strong scattered punctures, the latter more finely punctured and indistinctly transversely striated; the tegulæ and legs red, with the coxæ and femora above more or less black; wings fusco-hyaline, the nervures ferruginous. Abdomen: the petiole and two basal segments red, the apical margin of the second sometimes black, or

rarely the petiole and base of the first segment only, red; the apical margins of all the segments white; the petiole nearly as long as the abdomen.

The male is rather smaller, and has the antennæ entirely black; the mandibles slightly ferruginous; the tegulæ more or less ferruginous: this sex is also usually more pubescent; the petiole and first segment red; but frequently the petiole is more or less fuscous, sometimes black.

This species very closely resembles *Enodia albisecta*; its principal differences consist in having a longer petiole and the metathorax substriated; the petiole, legs and mandibles are also more or less red.

Hab. Gambia.

Genus 14. DOLICHURUS.

Pompilus, pt., *Spin. Ins. Lig.* fasc. 2. 52 (1808).
Pison, *Latr. Gen. Crust. et Ins.* iv. 58 (1809).
Dolichurus, *Latr. Gen. Crust. et Ins.* iv. 387 (1809).

1. Dolichurus corniculus. B.M.

Pompilus corniculus, *Spin. Ins. Lig.* fasc. 2. 52.
Pison ater, *Latr. Gen. Crust. et Ins.* iv. 58.
Dolichurus ater, *Latr. idem*, 387.
Van d. Lind, Obs. i. 95.
Dolichurus corniculus, *St. Farg. Encycl. Méth.* x. 450.
Shuck. Foss. Hym. 85. 1.
Dahlb. Hym. Europ. i. 29. 13.
St. Farg. Hym. iii. 327. 1.
Wesm. Hym. Foss. Belg. 70. 1.

Hab. Europe.

Genus 15. AMPULEX.

Sphex, pt., *Fabr. Ent. Syst.* ii. 198 (1793).
Chlorion, pt., *Fabr. Syst. Piez.* 217 (1804).
Ampulex, *Jurine, Hym.* p. 134 (1807).

1. Ampulex compressa. B.M.

Sphex compressa, *Fabr. Ent. Syst.* ii. 206. 32; *Mant.* i. 275. 25.
Chlorion compressum, *Fabr. Syst. Piez.* 219. 7.
Latr. Hist. Nat. Crust. et Ins. xiii. 294.
Westw. Trans. Ent. Soc. Lond. iii. 227 (1843).

Ampulex compressa, *Jurine*, *Hym.* p. 134 (1807).
St. Farg. Encycl. Méth. x. 450; *Hym.* iii. 325. 1.
Dahlb. Hym. Europ. i. 29. 1.
Guêpe Ichneumon, *Reaum. Ins.* vi. 280. t. 28. f. 2, 3.

Hab. India; China; Isle of France; Java.

The neuration of the wings is very inconstant in this species, particularly in small examples of the male; the typical number of submarginal cells is three, but the first transverse cubital nervure is frequently obsolete, or partly so, thus making the number two.

2. Ampulex Sibirica. B.M.

Sphex sibirica, *Fabr. Ent. Syst.* ii. 207. 33, & *Cat. Mus. Linn. Soc.*
Chlorion sibiricum, *Fabr. Syst. Piez.* 218. 4.
Ampulex compressiventris, *Guér. Icon. Règ. Anim.* iii. t. 70. f. 4.
Ampulex Guerini, *Dahlb. Hym. Europ.* i. 29. 2.

Hab. Siberia? (*Fabr.*); Malabar; Senegal; Sierra Leone; The Gambia.

3. Ampulex cuprea. B.M.

Male. Length 4¼ lines.—Brassy-green, varying in tint in different lights; the carina on the face entire, arched, and produced at the apex; the head deeply rugose-punctate. The prothorax is transversely rugose-striate above, the sides being roughly punctured; the mesothorax covered with large deep punctures; the metathorax has a central carina which terminates before the apex; on each side is an abbreviated oblique one and a second entire oblique carina which unite at the apical margin of the truncation by a short transverse one; the lateral margins are raised, and the apical angles terminate in a stout bent tooth; the wings hyaline and iridescent, the nervures fusco-ferruginous. Abdomen shining, and having a few scattered delicate punctures.

Hab. China (Hong Kong).

In the Museum are two examples of this species; in both the first recurrent nervure is obsolete.

4. Ampulex cyanipes.

Chlorion cyanipes, *Westw. Trans. Ent. Soc. Lond.* iii. 230 ♂; *Arc. Ent.* ii. 65. t. 65.

Hab. Cape of Good Hope.

5. Ampulex purpurea. B.M.

Chlorion purpureum, *Westw. Arc. Ent.* ii. 65 ♀.

Hab. Africa (Cape of Good Hope; Port Natal).

This species is subject to the same variation in the neuration of the wings as the typical species, *A. compressa*.

6. Ampulex nebulosa. B.M.

Female. Length 4½ lines.—Green: the head, pro- and mesothorax covered with large deep confluent punctures; the clypeus with an elevated carina in the centre, its apex as well as the mandibles ferruginous; the antennæ black; the head with scattered erect long white hairs. The metathorax with one central and three lateral longitudinal oblique carinæ, between which it is transversely striated; the lateral apical margins of the verge of the truncation armed with a stout acute tooth; the truncation transversely rugose; the post-scutellum covered with silvery pubescence; thorax and legs with scattered erect pale pubescence; the posterior coxæ covered with silvery-white pubescence; the calcaria pale testaceous; the wings hyaline, a dark cloud crossing the anterior wings from the base of the marginal cell, occupying the apex of the first submarginal, the whole of the second, and the upper portion of the third discoidal cell. Abdomen strongly, but not very closely, punctured, the apex of the second segment and the whole of the following segments covered with silvery hairs.

Hab. Port Natal.

7. Ampulex chalybea, n. s. Pl. VII. fig. 3. B.M.

Female. Length 9 lines.—Dark blue, variegated with bright purple tints; the mandibles, anterior tibiæ in front, and the knees, ferruginous; the antennæ and tarsi dark fuscous; the wings fuscous; the head coarsely punctured; the prothorax and sides of the mesothorax with large scattered punctures; the metathorax with a central longitudinal carina and three oblique ones on each side, the spaces between transversely striated; the apical angles produced into a stout sharp angular tooth; the abdomen impunctate.

Hab. Africa (Fantee).

This may possibly be the *A. fumipennis* of Dahlbom; but, as he does not mention the red mandibles and front of the anterior legs, it has not been considered advisable to adopt his name.

8. Ampulex angusticollis. B.M.

Ampulex angusticollis, *Spin. Ann. Soc. Ent. Fr.* x. 108. 64 ♀.
Chlorion angusticolle, *Westw. Arc. Ent.* ii. 66. 4.

Hab. Cayenne; Brazil (Para).

9. Ampulex ænea.

Ampulex ænea, *Spin. Ann. Soc. Ent. Fr.* x. 110 ♀.
Chlorion æneum, *Westw. Arc. Ent.* ii. 110.

Hab. Cayenne.

10. Ampulex thoracica. B.M.

Male. Length 5¼ lines.—Blue-green: the head coarsely punctured, elongated and much narrowed behind the eyes; the carina on the face produced at the apex into an acute spine; the lateral angles of the face produced and acute. The pro- and mesothorax with large deep punctures; the prothorax elevated posteriorly, and transversely striated in front; the metathorax with a central and four lateral carinæ, the interstices transversely striated, the posterior angles terminating in long stout bent spines; the wings subhyaline, with two indistinct fuscous fasciæ, one crossing the second submarginal cell, the other traversing the apex of the externo-medial cell. Abdomen smooth, shining and impunctate.

Hab. Brazil (Villa Nova).

This is probably the male of *Ampulex angusticollis*.

11. Ampulex raptor. B.M.

Male. Length 5 lines.—Bright green: head thickly and coarsely punctured; the clypeus carinated in the centre and produced into an acute spine at the apex. The pro- and mesothorax covered with large deep coarse punctures; the metathorax with a central carina and four lateral ones, between which it is transversely striated; the lateral apical margins of the superior surface produced into a stout long curved spine; the truncation rugose; wings hyaline, with a faint cloud crossing the second submarginal cell, and occupying also the base of the marginal cell; the legs with tints of blue on the tibiæ and tarsi, the coxæ and thorax beneath with large, not very close, deep punctures. Abdomen ovate, with a blue tinge on the disk; the first, third and following segments coarsely punctured; the second segment with finer scattered punctures.

Hab. Venezuela.

This species is most nearly allied to *A. thoracica*, but differs in wanting the prominent angles at the anterior margin of the face; the prothorax is of a different form and is differently sculptured, and the abdomen is coarsely punctured; in *A. thoracica* it is smooth and shining.

12. Ampulex hospes. B.M.

Female. Length 12 lines.—Brilliant purple, with shades of green in certain lights; the head with scattered punctures, which are closest and strongest towards the insertion of the antennæ; the clypeus with a highly elevated carina down the centre; an abbreviated impressed line above the stemmata. Thorax: the prothorax smooth and convex above, with a few delicate scattered punctures; the mesothorax, scutellum and post-scutellum smooth and shining, with a few widely dispersed punctures; the disk of the mesothorax with two deeply impressed longitudinal lines, extending from the anterior margin to the base of the scutellum; outside of each, close to the tegulæ, is a deeply impressed fovea; the wings fuscous; the femora red; the metathorax rounded at the posterior angles, not spined, the upper surface with two oblique broad longitudinal grooves, which are transversely striated; the sides and posterior margin of the upper surface smooth and shining; the truncation smooth and shining; the sides have a transversely striated groove at their upper margin, below which they are punctured. Abdomen very smooth and shining, much compressed at the sides; beneath suddenly produced at the base of the second segment.

Hab. Borneo (Sarawak). (Coll. A. R. Wallace, Esq.)

This species in some particulars differs from those of the rest of the genus: the antennæ are stouter and shorter, as are also the mandibles; the wings, in the three females received, have only two submarginal cells, but the obliteration of the first transverse cubital nervure is of frequent occurrence in the genus; the metathorax is without spines at the posterior lateral angles, and the abdomen is abruptly produced at the base of the second segment beneath:—these differences constitute a remarkable and very distinct species; they cannot be regarded as of higher value, as a good series of the different species of the genus exhibit many approaches to the remarkable peculiarities of the present species.

Genus 16. RHINOPSIS.

Rhinopsis, *Westw. Arc. Ent.* ii. 68.

1. Rhinopsis Abbottii. Pl. VII. fig. 3. B.M.

Rhinopsis Abbottii, *Westw. Arc. Ent.* ii. 68. t. 65. f. 5 ♀.

Hab. Georgia.

Genus 17. APHELOTOMA.

Aphelotoma, *Westw. Trans. Ent. Soc. Lond.* iii. 225 (1841).

1. Aphelotoma Tasmanica. Pl. VII. fig. 4 ♂.

Aphelotoma tasmanica, *Westw. Trans. Ent. Soc. Lond.* iii. 226. t. xii. f. 4 ♀; *Arc. Ent.* ii. 65. t. 65. f. 3 ♂.

Hab. Van Diemen's Land. (Coll. W. W. Saunders and J. O. Westwood, Esq.)

Genus 18. TRIROGMA.

Trirogma, *Westw. Trans. Ent. Soc. Lond.* iii. 223 (1841).

1. Trirogma cærulea. B.M.

Trirogma cærulea, *Westw. Trans. Ent. Soc. Lond.* iii. 225. t. 12. f. 3 ♂; *Arc. Ent.* ii. 66. t. 65. f. 4 ♀.

Hab. Northern India; Madras.

Fam. 4. LARRIDÆ.

Mandibles notched exteriorly near the base; the labrum concealed, with a single spine at the apex of the intermediate tibiæ; the abdomen ovoid-conical.

Larrida, *Leach. Edin. Encycl.* (1817).
Larradæ, *Leach, Sam. Comp.* (1819).
Larridæ, *Steph. Syst. Cat.* (1829).
Larrites, *Newm. Ent. Mag.* i. (1834).
Lyrops, pt., *Guér. Icon. Règ. Anim.* iii. (1834).

Genus 1. LARRADA.

Sphex, pt., *Rossi, Faun. Etrus.* ii.
Fabr. Ent. Syst. ii. 213 (1793).
Larra, pt., *Fabr. Ent. Syst.* ii. 221.
Pompilus, pt., *Fabr. Syst. Piez.* 194 (1804).
Liris, pt., *Illig. Ed. Faun. Etrus.* (1807).
Astata, pt., *Spin. Ins. Lig.* i. 18 (1808).

The genus *Larra* was established by Fabricius in his "Ento-

mologia Systematica," and contained three or four species agreeing with its type, *Larra vespiformis*, the *Stizus vespiformis* of Latreille, Dahlbom and St. Fargeau. In this Catalogue the name *Larra* is restored to those species for which Fabricius originally formed it. The genus *Larra* of Latreille contains two, or perhaps more, good generic types of form: for one, the generic appellation *Tachytes*, as proposed by Panzer, is adopted: for the second the name *Larrada* is proposed; it contains those species which have the marginal cell *truncated at the apex* and *appendiculated*, and three submarginal cells, the first as long as the two following, the second receiving both recurrent nervures near its centre, the third lunate; the metathorax *truncated posteriorly*, *elongate*, the sides being generally parallel, but sometimes a little wider at the base; the mandibles large, arcuate, with a dentation on their exterior towards the base; abdomen ovato-conical, acuminate at the apex. In the type, *L. anathema*, the mandibles are not toothed within, and such is the case with the majority of the species; but in many there is a stout tooth, which is notched at its base. Probably a thorough investigation of the mandibles of all the species would show the necessity for making a separate genus for the species with teeth within the mandibles; in the present work they are included with the rest.

Species of Europe.

Div. 1. *Abdomen red and black.*

1. LARRADA ANATHEMA. B.M.

Sphex anathema, *Rossi, Faun. Etrus.* ii. 65. 822 ♀.
Larra ichneumoniformis, *Fabr. Ent. Syst.* ii. 221. 4 ♂; *Syst. Piez.* 220. 4.
Coqueb. Illustr. Icon. Ins. ii. t. 12. f. 10 ♀.
Panz. Faun. Germ. 76. 18 ♂; *Krit. Revis.* ii. 128.
Spin. Ins. Lig. i. 72. 1.
Latr. Nouv. Dict. 2nd ed. xvii. 324; *Gen. Crust. et Ins.* iv. 71.
Dumer. Dict. Sc. Nat. xxv. 285.
Guér. Dict. Class. ix. 224.
Loris anathema, *Illig. Ed. Faun. Etrus.* ii. 101. 822.
Pompilus teutonus, *Fabr. Syst. Piez.* 194. 34 ♀.
Larra anathema, *Van d. Lind, Obs.* ii. 18. 1.
Shuck. Foss. Hym. 87. 1
Dahlb. Hym. Europ. i. 136. 68 & 472. 1.
Smith, Cat. Brit. Hym. 18. 1.
Tachytes anathema, *St. Farg. Hym.* iii. 254. 17.
Lucas, Explo. Sc. Algér. iii. 250.

Hab. Italy; France; Germany; Hungary; Greece; Algeria; Port Natal. (Britain?)

Div. 2. *Abdomen black.*

2. Larrada nigra.

Tachytes nigra, *Van. d. Lind, Obs.* ii. 23. 6.
St. Farg. Hym. iii. 242. 3.
Lucas, Explo. Sc. Algér. iii. 248.

Hab. Italy; Algeria (Oran).

3. Larrada nitida.

Astata nitida, *Spin. Ins. Lig.* i. 18.
Tachytes nitida, *Van. d. Lind, Obs.* ii. 24. 7.
Tachytes pompiliformis, *Dahlb. Hym. Europ.* i. 130. 66.

Hab. Italy; Germany; Sweden. (Coll. W. W. Saunders, Esq.)

4. Larrada atrata. B.M.

Tachytes atrata, *St. Farg. Hym.* iii. 245. 6.
Lucas, Explo. Sc. Algér. iii. 248.

Hab. Piedmont; Algeria.

Species of Asia.

Div. 1. *Abdomen red, or red and black.*

5. Larrada simillima.

Female. Length 7–9 lines.—Head, thorax and legs black; the two former closely punctured and thinly covered with short cinereous pubescence; the metathorax elongate, abruptly truncate at the apex, the truncation punctate and having a longitudinal channel; the mandibles and scape obscurely rufo-piceous; the clypeus thinly clothed with auriehalceous pubescence; wings dark fuscous; the legs black, finely pubescent; the calcaria, spines and claws obscurely ferruginous, sometimes nearly black. Abdomen red, smooth and shining, the segments covered laterally with a dense sericeous pubescence; the two apical segments black; in some examples the apical margin of the fourth segment is also black, in other instances the entire segment; another variety has the basal and apical segments black.

Hab. India; Africa. (Coll. F. Smith.)

This species closely resembles *L. anathema*, from which it is distinguished by the colouring of the abdomen, by not having an impressed line on the vertex, or a longitudinal central carina, and by the truncation of the metathorax being punctured, not transversely finely strigose.

6. Larrada aurulenta. Pl. VII. fig. 5. B.M.

Sphex aurulenta, *Fabr. Mant.* i. 274. 10.
Sphex aurata, *Fabr. Ent. Syst.* ii. 213. 64.
Pompilus auratus, *Fabr. Ent. Syst. Supp.* 250. 25.
Liris aurata, *Fabr. Syst. Piez.* 228. 3.
Dahlb. Hym. Europ. i. 135.
Tachytes opulenta, *St. Farg. Hym.* iii. 246. 7.
Lyrops auratus, *Guér. Icon. Règ. Anim.* iii. 440.

Hab. India; China; Java; Sumatra; Celebes; Philippine Islands; Africa (the Cape of Good Hope; the Gambia).

Specimens of this species received from the Cape and the Gambia agree with the Indian ones in sculpture, but differ considerably in colour; they have the antennæ ferruginous, with a few of the apical joints more or less fuscous; the wings are much darker, and the anterior legs only are ferruginous; the apical segment of the abdomen is more or less ferruginous;—but we can only regard this as a climatic variety.

7. Larrada conspicua.

Female. Length 7 lines.—Black: the anterior margin of the clypeus, the scape and mandibles, ferruginous, the latter black at their tips; the extreme apex of four or five of the basal joints of the flagellum ferruginous; the face covered with silvery pubescence, which has a faint golden tinge. The tegulæ, legs, apical and two basal segments of the abdomen, ferruginous; the wings yellowish hyaline, the apical margins with a dark fuscous border, the nervures pale ferruginous; the metathorax finely transversely striated: probably in examples in fine condition the thorax would have a covering of pale golden pubescence. The third, fourth and fifth segments of the abdomen are dark fusco-ferruginous, not black.

Hab. India. (Coll. W. W. Saunders, Esq.)

8. Larrada argyrea. B.M.

Female. Length 3½ lines.—Black: the face densely covered with silvery pubescence; the mandibles ferruginous, covered with silvery pubescence at the base; the scape of the antennæ rufo-testaceous in front. The metathorax widest at the base, finely shagreened above, the truncation smooth and shining, thinly covered, as well as the sides, with silvery pubescence; the wings hyaline, the nervures and tegulæ pale rufo-testaceous; the tibiæ and tarsi rufo-testaceous, the intermediate and posterior tibiæ with a fuscous stain beneath. Abdomen: the three

basal segments ferruginous, the third with a fuscous band a little beyond the middle; the margins of the following segments pale testaceous, the apical segment ferruginous.

Hab. Northern India.

Div. 2. *Abdomen black.*

9. Larrada maura. B.M.

Sphex maura, *Fabr. Ent. Syst.* ii. 212. 55.
Pompilus maura, *Fabr. Ent. Syst. Supp.* 247. 11.
Liris maura, *Fabr. Syst. Piez.* 230. 10.

Hab. Tranquebar.

Fabricius having placed the *Sphex maura* eventually in the genus *Liris*, which contains species all belonging either to *Tachytes* or *Larrada*, there can be little doubt of the *L. maura* of this Catalogue being identical with the Fabrician insect; it nearly resembles the *L. glabrata*, but has the metathorax closely and strongly punctured above and behind, the verge of the truncation rounded, not sharply truncate; the wings also are subhyaline; the basal margins of the segments of the abdomen finely punctured, smooth and shining, not pubescent.

10. Larrada tristis. B.M.

Female. Length 4 lines.—Black: the face covered with silvery pubescence, the scape rufo-piceous in front. The mesothorax and scutellum very finely and closely punctured, subopake; the metathorax transversely and somewhat coarsely rugose; the sides of the disk and the truncation very coarse, and covered with short silvery pubescence; the sides of the metathorax obliquely striated; wings yellow-hyaline, the nervures and tegulæ rufo-testaceous. The abdomen with a fine silky pile; the margins of the segments with bands of silvery pile, observable in different lights.

Hab. Borneo.

11. Larrada subtessellata. B.M.

Female. Length 6–7 lines.—Black: the face covered with a fine sericeous silvery pile; the anterior margin of the clypeus smooth and shining; the mandibles rufo-piceous at their apex. Thorax smooth, not shining; in fine examples with a silky down on the lateral and posterior margins of the mesothorax; the wings subhyaline, the nervures fusco-ferruginous, the tegulæ rufo-piceous; the metathorax slightly narrowed towards the apex, above transversely strigose, not coarsely so; the thorax at

the sides and beneath, and also the legs, have a fine silky cinereous pile; the posterior femora bright ferruginous. Abdomen covered with a fine silky pile, that on the posterior margins of the segments silvery; in some lights, the abdomen has a tessellated appearance; the apical segment opake, and having a few scattered rigid hairs.

Hab. India; Sumatra; Java.

This is quoted by Dahlbom as the *Liris maura* of Fabricius, but that author does not mention the silvery pile on the abdomen; we have therefore given the name *maura* to another species. Dahlbom also gives Australia as the locality: the only species from that country agreeing with the description of Fabricius is quite distinct from the present insect, and appears to be one of the varieties of the *femorata* of Saussure.

12. Larrada laboriosa. B.M.

Female. Length 5–6 lines.—Black: the face has a thin silvery pubescence; the mesothorax and scutellum shining, very delicately punctured; the metathorax very finely transversely rugose, the truncation more strongly so; the sides of the metathorax delicately obliquely strigose; the disk has an abbreviated longitudinal carina, and the truncation a deeply impressed line; wings smoky hyaline, the nervures black; the legs thinly covered with sericeous pile. Abdomen covered with a fine changeable pile; that on the apical margins of the segments bright and silvery, but only observable in certain lights.

Hab. Philippine Islands.

Closely resembling *L. vigilans*, but easily distinguished by the sculpture of the metathorax.

13. Larrada exilipes. B.M.

Male. Length 3½ lines.—Black: covered with short changeable silvery pile, which is most dense on the sides and apex of the metathorax and on the apical margins of the segments of the abdomen; the face with a dense bright silvery pubescence. The metathorax irregularly transversely rugose, with some coarse grooves at the sides and on the truncation, which has in the middle a deeply impressed fossulet; the wings hyaline, with the apical margins slightly fuscous; the nervures and tegulæ rufotestaceous; the posterior femora bright ferruginous; the legs slender and elongate.

Hab. Northern India.

This is probably the male of *L. subtessellata*.

14. Larrada glabrata. B.M.

Female. Length 7 lines.—Black: the head smooth and shining; the antennæ rufo-fuscous, the scape smooth, shining and rufo-piceous in front; the mandibles ferruginous. The mesothorax closely punctured, and having a sparing short fuscous pubescence; the metathorax elongate, the sides parallel, the apex abruptly truncate, above rugose, with a central longitudinal carina, which extends to the verge of the truncation; the latter has an impressed line in the centre, is shining and delicately punctured, with the lateral margins roughened; the wings fuscous, the tegulæ rufo-testaceous; the sides of the pectus and the femora ferruginous, the latter incrassate; the intermediate and posterior tibiæ and the tarsi thickly spined, the spines dark ferruginous. Abdomen elongate, smooth, shining and impunctate.

Hab. Celebes.

15. Larrada jaculator. B.M.

Female. Length 6 lines.—Black: the face and cheeks with a fine short silvery pubescence; that on the former has a faint golden tinge; the apex of the mandibles rufo-piceous. The mesothorax and scutellum smooth shining and delicately punctured; the sides of the former with a fine short pale yellow pubescence; the metathorax, legs and abdomen covered with a changeable silvery pile; the metathorax finely shagreened and having a central longitudinal carina, not extending to the verge of the truncation; the truncated portion very finely transversely strigose, and having a central longitudinal impressed line; wings flavo-hyaline, darkest towards the base of the anterior pair, their apical margins faintly clouded, the nervures pale ferruginous. Abdomen sericeous; in some lights the apical margins are seen to have bright silvery fasciæ; the apical segment covered with silvery pubescence and rounded at the apex.

Hab. North Bengal.

16. Larrada vigilans. B.M.

Female. Length 6 lines.—Black: the face thinly covered with silvery pubescence; the mandibles rufo-piceous; the mesothorax and scutellum smooth; the wings subhyaline, the nervures testaceous; the metathorax transversely rugose and having a longitudinal impressed line, which is continued to the verge of the truncation, the latter transversely rugose; the spines on the tibiæ and tarsi ferruginous; the apical margins of the segments of the abdomen with fasciæ of bright silvery pile, only observable

in certain lights; the apical segment rugose, the extreme apex ferruginous.

Hab. China.

Species of Africa.

Div. 1. *Abdomen red, or red and black.*

17. Larrada hæmorrhoidalis. B.M.

Pompilus hæmorrhoidalis, *Fabr. Syst. Piez.* 198. 55.
Lyrops Savignyi, *Spin. Ann. Soc. Ent. Fr.* vii. 476. 26 (1838).
Liris orichalcea, *Dahlb. Hym. Europ.* i. 135.
Liris Savignyi, *Dahlb. Hym. Europ.* i. 471. 2.
Tachytes illudens, *St. Farg. Hym.* iii. 249. 12.

Hab. Africa (Egypt; Sierra Leone; Gambia); India (Punjaub, &c.).

18. Larrada abdominalis.

Larra abdominalis, *Guér. Voy. Abyss. Lefeb.* vi. 358. t. 8. f. 7.

Hab. Abyssinia.

19. Larrada rubella.

Female. Length 5 lines.—Head, thorax and legs black; the face covered with bright silvery pubescence; the base of the mandibles and the cheeks thinly covered with silvery pubescence; the palpi, mandibles and scape in front obscurely ferruginous. The mesothorax and scutellum closely punctured, the metathorax coarsely rugose; the wings subhyaline, their apical margins with a broad fuscous cloud, the nervures and tegulæ dark ferruginous. Abdomen dark red, the basal segment more or less black at the sides; the apical margins of the segments with fasciæ of silvery pubescence.

Hab. Fernando Po. (Coll. W. W. Saunders, Esq.)

20. Larrada rufiventris.

Larrada rufiventris, *Spin. Ann. Soc. Ent. Fr.* vii. 479. 15 ♀ (1838).

Hab. Egypt.

Div. 2. *Abdomen black.*

21. Larrada nigrita. B.M.

Tachytes nigrita, *St. Farg. Hym.* iii. 241. 2.
Lucas, Explo. Sc. Algér. iii. 247. t. 13. f. 10.

Hab. Algeria; Madeira.

The example in the Museum Collection agrees with the description of St. Fargeau in every respect except a slight difference in the sculpture of the metathorax, which is finely transverse-striate and coarsely ridged at the sides, the truncation transversely grooved.

22. Larrada tarsata.

Lyrops tarsalis, *Spin. Ann. Soc. Ent. Fr.* vii. 478. 27 ♂ (1838).

Hab. Egypt.

23. Larrada geniculata.

Lyrops geniculata, *Spin. Ann. Soc. Ent. Fr.* vii. 480. 29 ♀ (1838).

Hab. Egypt.

24. Larrada erythropus.

Lyrops erythropus, *Spin. Ann. Soc. Ent. Fr.* vii. 479. 28 ♀ (1838).

Hab. Egypt.

This may possibly be identical with the *L. pallipes*; but Spinola does not mention the sculpture of the metathorax, which in this genus appears to offer the best specific distinctions.

25. Larrada Memnonia. B.M.

Female. Length 7 lines.—Black: the face covered with silvery pubescence, the mandibles obscurely rufo-piceous, the apical joints of the palpi pale testaceous. The thorax covered with a fine silvery pile, as well as the legs; the tarsi and apex of the tibiæ ferruginous; the wings fulvo-hyaline, the nervures and tegulæ behind rufo-testaceous; the scutellum smooth and shining; the metathorax finely transversely striated, and having a central abbreviated carina not extending to the verge of the truncation, the striæ coarser at the sides, the truncation also coarsely striated. The apical margins of the segments of the abdomen with fasciæ of changeable silvery pile.

Hab. Egypt; Senegal.

26. Larrada obliqua. B.M.

Female. Length 4 lines.—Black: the face thinly covered with silvery pubescence. Thorax: the mesothorax very closely and finely punctured, as is also the scutellum; the metathorax with a central impressed line which extends to the verge of the truncation; on each side the disk is obliquely striated; the truncation transversely striated, and having a central carina which

terminates in a deep fossulet above; wings hyaline, faintly clouded at their apical margins, the nervures testaceous; the two apical joints of the tarsi ferruginous. Abdomen thinly covered with a fine thin sericeous pubescence, the three basal segments slightly depressed.

Hab. Cape of Good Hope.

27. Larrada aterrima.

Female. Length 4½ lines.—Deep opake black: the face with bright silvery pubescence; the mesothorax with a central longitudinal depression in front, on each side of which is an elongated slightly impressed line, and also a short scratch opposite the front of the tegulæ, the latter rufo-piceous behind; the wings smoky, the nervures black; the metathorax very delicately transversely striated, the sides obliquely so, and the truncation with coarse transverse ridges and a central longitudinal deeply impressed line. Abdomen: the basal segment and the apical margins of the segments with bright silvery fasciæ, observable in certain lights.

Hab. Cape of Good Hope. (Coll. F. Smith.)

28. Larrada pallipes. B.M.

Male. Length 4 lines.—Black, and covered with a grey silky pile; the face densely covered with bright silvery pubescence; the palpi, mandibles and scape ferruginous. The mesothorax and scutellum closely punctured; the metathorax transversely rugose; a central longitudinal carina extends to the verge of the truncation; the sides of the metathorax obliquely strigose; the wings subhyaline and iridescent, the nervures and tegulæ pale rufo-testaceous; the legs pale ferruginous, the coxæ and trochanters fuscous; the apical margins of the segments of the abdomen slightly depressed.

Hab. Africa.

This may possibly be the male of *L. ferrugineipes*, but the metathorax is longer and much more coarsely sculptured.

29. Larrada punctata.

Female. Length 3½ lines.—Black: the head, the mesothorax above and beneath, the scutellum and metathorax, closely and finely punctured; the sides of the latter obliquely striated, the truncation transversely so; the face with fine sericeous pubescence; the mandibles ferruginous; wings fuscous and iridescent;

the apical joints of the tarsi ferruginous. The apical margins of the segments of the abdomen obscurely rufo-piceous.

Hab. Cape of Good Hope. (Coll. F. Smith.)

30. Larrada solstitialis. B.M.

Female. Length 8–9 lines.—Black, and covered with a fine silky silvery pile; the face, sides of the scape, and base of the mandibles covered with silvery pubescence which has a faint golden tinge; the thorax above has a similar clothing to the face, most dense on the lateral and posterior margins of the mesothorax and on the sides of the metathorax, the disk of the latter transversely striated, its sides and also the truncation coarsely so; the truncation has a central longitudinal impressed line deepest towards the verge of the truncation; the wings flavo-hyaline, their apical margins with a fuscous cloud, the nervures and tegulæ rufo-testaceous; the posterior femora ferruginous; the spines which arm the tibiæ and tarsi ferruginous. The abdomen with changeable silvery fasciæ on the apical margins of the segments.

Hab. Port Natal.

This species most closely resembles the *L. subtessellata*, but its metathorax is differently sculptured; the nervures of the wings are also of a different colour.

31. Larrada ciliata. B.M.

Female. Length 5 lines.—Black: the face covered with silvery pubescence; the tips of the mandibles ferruginous. Thorax: the mesothorax and scutellum smooth, shining, and very delicately punctured; the metathorax transversely striated, the sides of the disk and the truncation coarsely so; the sides of the metathorax obliquely striated; the wings fuscous, their apical margins with a darker cloud; the nervures and tegulæ testaceous; the tarsi ferruginous, the anterior pair with long dark-coloured flattened cilia, the spines which arm the intermediate and posterior pairs long and black. Abdomen without fasciæ: probably in fine condition it would have silvery bands.

Hab. South Africa.

32. Larrada ferrugineipes. B.M.

Tachytes ferrugineipes, *St. Farg. Hym.* iii. 248. 11.

Hab. Senegal; Congo.

The example believed to be the species described by St. Far-

geau has the metathorax transversely rugose. St. Fargeau does not mention the sculpture; his description would suit three or four species, and is very incomplete.

33. Larrada irrorata.

Female. Length 7 lines.—Black: the face densely clothed with golden pubescence; the cheeks and vertex have a thin golden pile. The mesothorax thinly covered with rich golden pile on the sides of the thorax; beneath, and on the metathorax, it is silvery; the disk of the metathorax transversely rugose; wings flavo-hyaline, their apical margins faintly clouded; the spines which arm the tibiæ and tarsi ferruginous. Abdomen covered with changeable silky pile; the margins of the segments having fasciæ of silvery pile, observable in different lights.

Hab. Senegal. (Coll. F. Smith.)

34. Larrada agilis.

Female. Length 5 lines.—Black: the face thinly covered with silvery pubescence; the scape, mandibles and anterior margin of the clypeus bright ferruginous; the vertex smooth, without the usual tubercles or ridges which replace the posterior ocelli. Thorax with a scattered glittering silvery pubescence; the metathorax longitudinally rugose in the middle, the sides of the disk transversely striated, as well as the truncation, which is coarsely grooved, and has a deeply impressed line in the centre; the sides of the metathorax obliquely striated; the wings hyaline, their apical margins faintly clouded, the nervures and tegulæ behind, rufo-testaceous; the tarsi bright ferruginous, their basal joint black; the tips of the posterior femora with a patch of ferruginous pubescence within; the posterior tibiæ not grooved longitudinally, as in the majority of the species. Abdomen attenuated at the base and apex, narrow and elongate; the posterior margins of the segments covered with silvery pile, observable in different lights.

Hab. The Gambia. (Coll. F. Smith.)

35. Larrada Crœsus.

Female. Length 7 lines.—Black: the head, thorax and abdomen covered with golden pubescence; on the vertex it is sparing, and the apical margins of the segments of the abdomen have bright golden fasciæ, which are more or less brilliant in different lights; the mandibles and scape in front dark rufo-piceous; the sides of the thorax, the coxæ and femora, covered with cinereous pile, that on the tibiæ and tarsi golden; the tarsi, the spines

which arm the tibiæ, and the apical segment of the abdomen, ferruginous; the wings yellow, with a broad dark fuscous border.

Hab. The Gambia. (Coll. F. Smith.)

36. Larrada sericea.

Female. Length 6 lines.—Black: the face covered with golden pubescence; on the cheeks and base of the mandibles it is silvery; the mandibles and scape ferruginous, the former black at their tips. The thorax covered with cinereous pubescence; on the mesothorax it is very short and sparing, but dense and longer on the metathorax; a spot of golden pubescence in front of the tegulæ; the legs ferruginous, with the coxæ and trochanters black; the wings hyaline, their nervures and tegulæ ferruginous. Abdomen covered with a grey sericeous pile, the apical margins of the segments with bands of bright silvery pile, very brilliant in some lights, the apical segment smooth and shining.

Hab. The Gambia. (Coll. F. Smith.)

Species of Australia.

Abdomen black.

37. Larrada Australis. B.M.

Tachytes Australis, *Sauss. Mém. Soc. Phys. Genève*, xiv. fasc. 1. 19. 8. t. f. 7 ♀.

Hab. New Holland.

38. Larrada femorata. B.M.

Tachytes femoratus, *Sauss. Mém. Soc. Phys. Genève*, xiv. fasc. 1. 20. 9. t. f. 6 ♂.

Female. Length 6½ lines.—Black: the head smooth and shining, the face has a little silvery pubescence, the mandibles ferruginous. Thorax opake; the mesothorax and scutellum very closely punctured; the metathorax very finely shagreened, the sides parallel; the legs ferruginous, the coxæ, trochanters and anterior legs black; the anterior tarsi, apex of the tibiæ and knees rufo-piceous; the wings smoky and iridescent, the tegulæ testaceous. Abdomen smooth, shining and very delicately punctured, the margins of the segments with a silvery border and narrowly rufo-piceous, particularly the three apical ones; the apical segment triangular, margined at the sides, and with a few large punctures.

Hab. New Holland.

Species of South America.

Div. 1. *Abdomen red, or red and black.*

39. Larrada pagana.

Tachytes pagana, *Dahlb. Hym. Europ.* i. 132.

Hab. Island of St. Crucis.

40. Larrada fulviventris.

Lyrops fulviventris, *Guér. Icon. Règ. Anim.* iii. 440.

Hab. Cuba.

41. Larrada rubricata. B.M.

Female. Length 4½ lines.—Head and thorax black; the face densely covered with silvery pubescence; the mandibles ferruginous. Thorax opake, the metathorax delicately shagreened, the lateral margins raised and having a little silvery pubescence; the apex abruptly truncate, the truncation covered with silvery pubescence; the legs have a fine silvery silky pile; the claws ferruginous; the wings hyaline, their apical margins slightly fuscous, the nervures and the tegulæ ferruginous. Abdomen ferruginous, the apical margins of the segments with fasciæ of silvery pile, observable only when viewed in some positions; the apical segment shining, and with a few scattered punctures.

Hab. Brazil (Para). (Coll. H. W. Bates.)

Div. 2. *Abdomen black.*

42. Larrada campestris. B.M.

Female. Length 5–6 lines.—Black: the face with bright pale golden pubescence; the head behind, the eyes and the mandibles at their base, with similar pubescence, in some lights having a bright silvery lustre, in others a golden brilliancy; the meso- and metathorax have a similar pubescence; the wings yellow at their base, slightly fuscous at their apex; the metathorax very finely granulated, the truncation abrupt, its margin slightly raised; the claws ferruginous, their tips black; the basal segment of the abdomen and the apical margins of the following segments with bright changeable silvery pubescence, very brilliant in some lights, but scarcely discernible in others.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

43. LARRADA CORONALIS. B.M.

Female. Length 6–7½ lines.—Black: the face shining; the clypeus covered with thin silvery pile; a smooth shining carina at the inner orbit of the eyes extending from opposite the insertion of the antennæ to the anterior stemma; the vertex densely covered with golden pubescence, a rounded spot of the same on the mesothorax; the metathorax elongate, smooth and opake above, the apex truncate, the sides and upper margin transversely strigose, with a longitudinal channel deeply impressed; the angles of the truncation with a macula of bright silvery pubescence; wings subhyaline, with a transverse fuscous cloud towards their apex; the nervures black; the marginal cell truncate at the apex; the legs have a fine cinereous pile, at the apex of the posterior tibiæ it is golden. Abdomen covered with a changeable pile, which has shades of purple, silver, or violet in different lights; on the lateral apical margins of the three basal segments a large patch of bright silvery pubescence; the segments also have lateral spots of silvery pile beneath; the apical segment very smooth and shining above, with a longitudinal carina on each side.

Hab. Brazil (the Amazons; Villa Nova). (Coll. H. W. Bates.)

44. LARRADA DECORATA. B.M.

Female. Length 7 lines.—Black: covered with a fine changeable silky pile, which in different lights is bright and silvery in parts; it is very brilliant on the apical margins of the segments of the abdomen, the truncation of the metathorax, and on the pectus, coxæ and femora beneath; the face and head behind the eyes covered with bright pale golden pubescence; the mesothorax has a deep depression in front, which is covered with golden pubescence, as are also the lateral and posterior margins; the metathorax has also a similar pubescence; the wings yellow, their apical margins with a broad fuscous cloud, the nervures pale ferruginous.

Hab. Brazil (Para). (Coll. H. W. Bates.)

45. LARRADA ANTICA.

Male. Length 4½ lines.—Black: the face covered with golden pubescence; the scape in front and the tips of the mandibles ferruginous. Thorax: the metathorax densely covered with golden pubescence; the wings subhyaline, a dark fuscous stripe runs from the base to the apex of the anterior pair; the posterior pair are faintly clouded at their apex; the tips of the femora, the tibiæ and tarsi rufo-testaceous. Abdomen: the apical margins

of the segments narrowly rufo-testaceous, the base with a fine cinereous pile.

Hab. Brazil (Amazons). (Coll. W. W. Saunders.)

46. Larrada fuliginosa.

Larra fuliginosa, *Dahlb. Hym. Europ.* i. 138 & 472. 3.

Hab. Cuba.

47. Larrada fulvipes. B.M.

Female. Length 7–8 lines.—Black: the head wider than the thorax; the face covered with silvery pubescence; the anterior margin of the clypeus rounded; the palpi and mandibles ferruginous. The thorax covered with a fine silky silvery pubescence, most dense at the sides of the mesothorax, on the post-scutellum and at the sides of the metathorax, the latter rounded behind; the wings hyaline, faintly tinted with yellow, the nervures and tegulæ of a fulvous-red; the legs of the same colour; the coxæ black; the marginal cell narrowed and rounded at the apex; the first transverse cubital nervure nearly straight. Abdomen: a little short silky pubescence at the base; the apical margins of the three basal segments with bands of silvery pubescence; the apical segment margined at the sides; the apex rounded, and with an obscure fusco-ferruginous pubescence.

Hab. Brazil; Jamaica; St. Domingo.

This species resembles *Tachytes Etrusca*, but the second submarginal cell is much wider towards the marginal cell; the head is wider than the thorax, and the abdomen has only three silvery bands; and the femora as well as the tibiæ and tarsi are red.

48. Larrada ignipennis. B.M.

Female. Length 7 lines. — Black: the face covered with silvery pubescence, as well as the cheeks and base of the mandibles. Thorax: the legs, thorax beneath, the breast and first segment of the abdomen beneath, covered with fine silky pile, very brilliant in certain lights; the meso- and metathorax subopake, the latter having a shallow indistinct longitudinal furrow; the lateral margins slightly raised, and with a few transverse raised carinæ; the truncation smooth in the middle, and having a few striæ at its upper margin, which is slightly raised; in the middle is a deep longitudinal furrow; the wings bright ferruginous, with a broad fuscous border at their apical margins. Abdomen with a fine silky pile, the apical margins of the segments with bright silvery fasciæ, varying in brilliancy in different lights;

the apical segment covered with silvery pubescence, with a smooth shining naked space at the base.

The male agrees with the female in general colouring, but is smaller.

Hab. St. Domingo.

49. Larrada laterisetosa. B.M.

Larra laterisetosa, *Spin. Mem. Accad. Torino*, xiii. 58. 41 (1853).

Hab. Brazil (Para).

50. Larrada luctuosa. B.M.

Female. Length 7–8 lines.—Black: the face, scape in front, cheeks and mandibles, covered with fine silvery silky pubescence; the anterior margin of the clypeus emarginate in the middle. Thorax: the mesothorax and scutellum closely and finely punctured; the metathorax delicately transversely striated, the sides obliquely so; the truncation coarsely rugose, the striation running in a circular direction; the margin of the truncation slightly rounded, not sharp or abrupt; the wings smoky-hyaline, the nervures black, the tegulæ shining; the legs have a fine cinereous pile; the tibiæ and tarsi strongly spinose. Abdomen sericeous, the margins of the segments with bright silvery fasciæ.

Hab. St. Domingo; Brazil.

51. Larrada nitidiuscula. B.M.

Female. Length 3 lines.—Black: the face covered with silvery pubescence, having a smooth space in the middle, extending from the anterior ocellus to the insertion of the antennæ; the mandibles pale rufo-testaceous, their apex rufo-piceous. The mesothorax and scutellum shining; the metathorax finely roughened, but shining; a faintly impressed longitudinal line in the middle, terminating in a deep fovea at the verge of the truncation; the latter shining, with a triangular fovea close to the upper margin in the middle; the sides of the metathorax with a little silvery pubescence; the thorax shining beneath; the tibiæ and tarsi pale rufo-testaceous; wings hyaline and iridescent, the nervures, extreme base of the wings, and the tegulæ, pale testaceous. Abdomen smooth and shining, with a fine silky pile, the apical margins of the segments narrowly pale testaceous.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

52. Larrada quadrifasciata. B.M.

Female. Length 4 lines.—Black: the face densely covered

with silvery pubescence. Thorax: the mesothorax very closely and finely punctured, the lateral margins covered with fine sericeous pile; the metathorax finely shagreened, the apex abruptly truncate, the truncation covered with silvery pubescence; the wings hyaline, with a faint cloud on their apical margins; the nervures testaceous, as well as the tegulæ behind; the thorax beneath and the legs have a fine silky pile. The apical margins of the four basal segments with fasciæ of silvery pile, observable in different lights; the apical segment covered with silvery pubescence, the tip ferruginous.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

53. LARRADA SUBPETIOLATA. B.M.

Female. Length 3 lines.—Black: the face silvery; the mandibles pale ferruginous, black at their base. The thorax covered with a fine thin cinereous pile, subopake; the metathorax delicately shagreened, the truncation abrupt and covered with bright silvery pubescence; the wings fusco-hyaline, their apical margins darkest; the nervures and tegulæ rufo-testaceous; the spines which arm the tibiæ and tarsi, not the calcaria, short, sparing, and pale testaceous. The abdomen subpetiolate, the apical margins of the segments with fasciæ of silvery pile, observable in different lights.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

54. LARRADA TRIFASCIATA. B.M.

Female. Length 4½ lines.—Black: the face, cheeks, and base of the mandibles covered with fine silvery sericeous pile. The mesothorax very delicately punctured, the punctures confluent; the metathorax opake, the sides and apex with a fine cinereous pile; the truncation abrupt, with the margin at its verge slightly raised; the sides of the truncation, and also of the disk, transversely striated; the wings subhyaline, their apical margins with a fuscous border; the nervures black. The thorax beneath and the legs covered with a fine changeable cinereous pile. Abdomen sericeous, with fasciæ of silvery pile on the apical margins of the three basal segments; the apical segment covered with silvery pubescence.

Hab. St. Domingo.

55. LARRADA TRUNCATA.

Female. Length 5 lines.—Black: the face, mandibles, and head behind the eyes covered with golden pubescence; the anterior margin of the clypeus truncated, the angles of the truncation

acute. Thorax: above clothed with golden pubescence, which is most sparing in the middle; on the sides, beneath, and on the legs, is a fine silky silvery pile; wings yellow-hyaline, with a broad fuscous apical margin; the nervures yellow towards the base of the wings, and fuscous towards their apex. Abdomen: the apical margins of the segments with broad pale golden bands, the apical segment obtuse and covered with pale pubescence.

Hab. Brazil. (Coll. F. Smith.)

Species of North America.

Div. 1. *Abdomen red and black.*

56. LARRADA ANALIS. B.M.

Larra analis, *Fabr. Syst. Piez.* 220. 8.

Hab. Carolina; United States (Delaware).

57. LARRADA LÆVIFRONS. B.M.

Female. Length 4½ lines.—Head and thorax black; the face thinly covered with silvery pubescence; the vertex with merely a slight elevation above the anterior ocellus, with two smooth spaces behind, between them a smooth shallow channel which passes a short way upwards towards the vertex terminating in a smooth fovea. Thorax opake; the metathorax finely shagreened, and having at the sides a little cinereous pubescence; wings hyaline, the nervures testaceous; the apical joints of the tarsi rufo-testaceous. Abdomen: the three basal segments red, the apical ones black; thinly covered with cinereous pile, the apical segment very smooth and shining.

Hab. East Florida (St. John's Bluff).

58. LARRADA TERMINATA. B.M.

Male. Length 3 lines.—Black: the head closely and rather strongly punctured; an impressed line runs backwards from the tubercles, which replace the two posterior ocelli, to the margin of the vertex; the face covered with silvery pubescence. The mesothorax shining and punctured; the metathorax shagreened; the thorax above with a scattered short cinereous pubescence; the wings hyaline and iridescent, the nervures testaceous; the apical joints of the tarsi rufo-testaceous. Abdomen shining, delicately punctured; the apical margins of the segments slightly depressed and narrowly rufo-piceous; the two apical segments

of the abdomen ferruginous; the abdomen above is scattered over with short glittering hairs.

Hab. North America (Trenton Falls). (Coll. W. W. Saunders, Esq.)

Div. 2. *Abdomen black.*

59. Larrada argentata. B.M.

Larra argentata, *Pal. de Beauv. Ins. Afric. et Amér.* 119. t. 3. f. 9. *Say, Bost. Journ.* i. 370.

Hab. United States.

60. Larrada distincta. B.M.

Female. Length 5 lines.—Black: the scape at its apex beneath and the tips of the mandibles ferruginous; the clypeus with a few large punctures. The mesothorax and scutellum very finely and closely punctured; the metathorax with a central longitudinal impressed line, on each side being obliquely striated, the striation slightly curved; the margin of the truncation rugose, beneath which it is transversely striated; wings hyaline, the nervures and tegulæ rufo-testaceous; the two apical joints of the tarsi rufo-testaceous. Abdomen smooth and shining, the apical segment with scattered punctures.

Hab. New York.

Very like *arcuata*, but at once distinguished by the sculpture of the metathorax.

61. Larrada Pennsylvanica. B.M.

Larra Pensylvanica, *Pal. de Beauv. Ins. Afric. et Amér.* 118. t. 3. f. 8.

Hab. St. John's Bluff; East Florida; North America.

62. Larrada canescens. B.M.

Female. Length 5 lines.—Black: thinly covered with short cinereous pubescence, the abdomen being covered above and beneath; the head, mesothorax and scutellum strongly punctured; the metathorax shagreened; the flagellum much thickened towards the base, which is again more slender; the wings brown, the posterior pair clearer at the base; the anterior tibiæ and tarsi obscure ferruginous. Abdomen: on the apical margins of the segments the pubescence is bright and silvery, observable in different lights.

Hab. Georgia.

63. LARRADA TENUICORNIS. B.M.

Female. Length 6 lines.—Jet-black and shining, not pubescent; the head and mesothorax very closely punctured; the anterior margin of the clypeus highly polished, and with a few large punctures; the antennæ slender and elongate, longer than the head and thorax; the metathorax transversely strigose, and having a central longitudinal slightly impressed line, which expands into a broad shallow fovea at the verge of the truncation; the latter oblique, with a large fovea above, from which emanates a narrower impressed line, which runs down to the base; wings dark brown; the apical joints of the tarsi obscure rufo-testaceous. Abdomen elongate, very acute at the apex.

Hab. California.

64. LARRADA ARCUATA. B.M.

Female. Length 4½ lines.—Black: the face with silvery pubescence; the mesothorax subopake; the scutellum shining and finely punctured; the metathorax with an arcuate striation, the striation curving forwards, interrupted in the middle by a longitudinal carina which runs to the verge of the truncation; the latter has a small triangular shape crossed by coarse arcuate striæ, in the middle of which is a deep fovea; from the fovea a carina runs downwards to the base; on each side of the carina the truncation is smooth, and covered with silvery-white pubescence; wings subhyaline, with a faint cloud at their apical margins; the two apical joints of the tarsi obscure rufo-testaceous. Abdomen smooth and shining, with the apical segment rugose.

Hab. Canada.

Genus 2. LARRAXENA.

Larraxena, *Smith, Ann. & Mag. Nat. Hist.* ser. 2. vii. 30 (1851).

1. LARRAXENA PRINCEPS. B.M.

Larraxena princeps, *Smith, Ann. & Mag. Nat. Hist.* 2nd ser. vii. 30.

Hab. Brazil.

Genus 3. MORPHOTA.

Head compressed, a little wider than the thorax; antennæ filiform, inserted at the base of the clypeus; the vertex slightly convex, the ocelli placed in a triangle forward on the vertex; eyes large, oval, lateral, their inner orbit straight; the mandibles

arcuate, with a dentation on the exterior towards the base. Thorax oval, the collar transverse; the metathorax of about equal length to the mesothorax, truncated posteriorly; the superior wings with one marginal cell appendiculated and truncated at its apex; three submarginal cells, the first longer than the two following; the second triangular, with the angles truncated; the third oblique, oblong, of equal width; the legs moderately long, spinose. Abdomen ovato-conical, acute at the apex.

This genus closely resembles *Larrada*, but differs principally in the neuration of the wings and in having three distinct ocelli.

1. Morphota fasciata. B.M.

Female. Length 3½ lines.—Head and thorax black; the clypeus covered with silvery pubescence; the vertex smooth; an impressed line runs from the anterior ocellus to the insertion of the antennæ; the mandibles and scape in front rufo-piceous; the thorax and legs with a fine thin glittering silky pile; the anterior wings have a transverse fascia crossing the second and third submarginal cells, the extreme apex slightly clouded; metathorax opake, very finely shagreened; the scutellum smooth and shining. Abdomen: the two basal segments and the base of the third segment ferruginous, the apical segments black; the apical margins of the second and third segments covered with silvery pile.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

2. Morphota concinna. B.M.

Female. Length 3–3½ lines.—Head and thorax black and shining; the head covered with a delicate silky pile, the clypeus with bright silvery pubescence; the mandibles ferruginous. The metathorax flattened above and longitudinally striated, the striæ slightly waved; the truncation highly polished, with a deep fossulet in the middle above, the sides with a few transverse coarse striæ; wings hyaline, beautifully iridescent, with a faint transverse fascia crossing the second and third submarginal cells, the nervures rufo-testaceous. Abdomen: the three basal segments ferruginous, the three apical black; the apical margins of the second and third segments covered with silvery pile.

Hab. Brazil (Tapajos).

3. Morphota Harpactoides. B.M.

Female. Length 5 lines.—Black: the face and cheeks densely covered with silvery pubescence, the head having a fine short downy pile. Thorax and legs covered with silvery pile, very

bright in different lights; the metathorax finely rugose, and with a central longitudinal carina which extends to the verge of the truncation; wings hyaline, faintly clouded at their apical margins, the nervures pale testaceous; the intermediate and posterior tibiæ with a double row of pale testaceous spines externally. Abdomen with the two basal segments ferruginous, covered with a fine downy pile; the apical margins of the second and third segments with fasciæ of silvery pile, only observable in certain lights.

Hab. Brazil.

Genus 4. TACHYTES.

Apis, pt., *Rossi, Faun. Etrus. Mant.* i. 143 (1792–4).
Sphex, pt., *Fabr. Ent. Syst.* ii. 215 (1793).
Lyrops, *Illig. Ed. Faun. Etrus.* (1807).
Tachytes, *Panz. Krit. Revis.* (1806).
Larra, *Panz. Faun. Germ.* 89. 13.

The genus *Tachytes*, as treated in this Catalogue, contains those species only which possess the following characters,—the type being the *Tachytes pompiliformis* of Panzer.

Head transverse, wider than the thorax; the mandibles large, arcuate and acuminate, within bidentate, deeply emarginate on the exterior towards the base, or notched, forming a dentate process. Thorax ovate; the prothorax almost concealed beneath the convex gibbosity of the mesothorax; the metathorax short, *rounded at the sides, gradually declined above to the apex, not sharply truncated, as broad as long*; the superior wings with one marginal cell, more or less *rounded at the apex*, not *truncated*; three submarginal cells, the second receiving both recurrent nervures. Abdomen short, ovate-lanceolate, subsessile, not longer than the thorax, usually subdepressed above; the apical segment with the disk flat, the margins reflexed.

Species of Europe.

Sect. 1. *Abdomen red and black.*

1. TACHYTES POMPILIFORMIS. B.M.

Larra pompiliformis, *Panz. Faun. Germ.* 89. 13; *Krit. Revis.* ii. 129.
Spin. Ins. Lig. ii. 173. 18.
Larra dimidiata, *Panz. Faun. Germ.* 106. 13 ♀.
Tachytes pompiliformis, *Van d. Lind*, ii. 21. 5 ♂ ♀.
Shuck. Foss. Hym. 89. 1.
St. Farg. Hym. iii. 252. 15.

Tachytes pectinipes, *Dahlb. Hym. Europ.* 127. 63 (nec *Sphex pectinipes*, Linn.).
Wesm. Hym. Foss. Belg. 72. 3.

Hab. Europe.

2. Tachytes obsoletus. B.M.

Apis obsoleta, *Rossi, Faun. Etrus. Mant.* i. 143. 318.
Sphex tricolor, *Fabr. Ent. Syst.* ii. 215. 71.
Pompilus tricolor, *Fabr. Ent. Syst. Supp.* 251. 33.
Panz. Faun. Germ. 84. 19.
Larra tricolor, *Fabr. Syst. Piez.* 221. 14.
Spin. Ins. Lig. i. 73. 2.
Jurine, Hym. 145.
Coqueb. Illustr. ii. t. 12. f. 9.
Tachytes tricolor, *Panz. Krit. Revis.* ii. 129.
Lyrops tricolor, *Latr. Gen. Crust. et Ins.* iv. 71.
Tachytes obsoleta, *Van d. Lind, Obs.* ii. 20. 2.
Dahlb. Hym. Europ. i. 133. 67.
St. Farg. Hym. iii. 251. 14.
Lucas, Explo. Sc. Algér. iii. 249.

Hab. France; Germany; Albania; Spain.

3. Tachytes Panzeri. B.M.

Tachytes Panzeri, *Van d. Lind, Obs.* ii. 20. 4.
Dahlb. Hym. Europ. i. 125. 61.
Wesm. Hym. Foss. Belg. 71. 2.

Hab. France; Germany.

4. Tachytes Brullii.

Tachytes bicolor, *Brullé, Expéd. Sc. de Morée*, iii. 373 ♀.

Hab. The Morea.

5. Tachytes? crassicornis.

Tiphia crassicornis, *Fabr. Mant.* i. 178. 2.
Larra crassicornis, *Fabr. Ent. Syst.* ii. 221. 5; *Syst. Piez.* 220. 5.
Dumeril, Dict. Sc. Nat. xxv. 285.
Van d. Lind, Obs. ii. 19. 2.

Hab. Spain.

6. Tachytes nigripennis.

Tachytes nigripennis, *Spin. Ins. Lig.* ii. 260.
Van d. Lind, Obs. ii. 20. 3.
Dahlb. Hym. Europ. i. 126. 62.

Hab. Italy; Germany.

Sect. 2. *Abdomen black.*

7. Tachytes Etrusca. B.M.

Andrena Etrusca, *Rossi, Faun. Etrus.* ii. 98. 900. t. 6. f. 11.
Lyrops Etrusca, *Illig. Ed. Faun. Etrus.* ii. 161. 900.
Latr. Gen. Crust. et Ins. iv. 71.
Tachytes Etrusca, *Van d. Lind, Obs.* ii. 19. 1.
St. Farg. Hym. iii. 244. 5.
Dahlb. Hym. Europ. i. 134.
Lucas, Explo. Sc. Algér. iii. 248.

Hab. Italy; Albania; Algeria.

8. Tachytes unicolor. B.M.

Larra unicolor, *Panz. Faun. Germ.* 106. 16 ♀.
Dahlb. Exercit. Hym. 55. 6.
Tachytes unicolor, *Shuck. Foss. Hym.* 89. 1.
Dahlb. Disp. Méth. Sp. Hym. 11. 44; *Hym. Europ.* i. 129.
Brullé, Hist. Nat. Il. Canar. 91. 54.
St. Farg. Hym. iii. 240. 1.
Lucas, Explo. Sc. Algér. iii. 246.
Tachytes pompiliformis, *Van d. Lind, Obs.* ii. 21. 5. (var.)
Wesm. Hym. Foss. Belg. 71. 1.
Larra Jurinii, *Drapiez, Ann. Gén. Sc. Phys. Brux.* i. 54. t. 4. f. 7 ♂?
Tachytes Jurinii, *Van d. Lind, Obs.* ii. 24. 8?

Hab. Britain; France; Italy; Germany; Scandinavia.

9. Tachytes argentata. B.M.

Tachytes argentata, *Brullé, Expéd. Sc. de Morée*, iii. 372. 822 ♂.

Hab. The Morea; Albania.

This is probably the male of *T. Etrusca*: females received in company with *T. argentata*, undoubtedly *T. Etrusca*, have the apical segment covered with golden pubescence; *T. argentata* is described as having the apical segment clothed with silvery pubescence.

Species of Asia.

Sect. 1. *Abdomen red and black.*

10. Tachytes tarsatus.

Female. Length 6 lines.—Head and thorax black; the face covered with pale golden pubescence; the mandibles and palpi ferruginous, tips of the former black; the thorax and legs covered with a silvery downy pubescence, most dense on the sides of the

mesothorax above, the sides of the metathorax, on the femora behind, and on the tibiæ outside; the tarsi ferruginous; the spines on the tibiæ and tarsi pale testaceous; wings hyaline, the nervures and tegulæ pale ferruginous. Abdomen ferruginous, the three apical segments black, covered with fine silvery pile; the apical margins of the segments with silvery fasciæ, those on the third, fourth and fifth broad, nearly covering the segment; the sides of the apical segment carinate, the segment clothed above with golden pubescence.

Hab. India. (Coll. F. Smith.)

11. TACHYTES FERVIDUS.

Female. Length 5½ lines.—Head and thorax black, and covered with short golden pubescence; the antennæ, anterior margin of the clypeus, and the mandibles, ferruginous; the flagellum fuscous above, and the mandibles rufo-piceous at their apex. The wings hyaline, the nervures and tegulæ pale ferruginous; the legs ferruginous, the anterior and intermediate coxæ more or less fuscous. Abdomen ferruginous, thinly covered with changeable short golden down, the margins of the segments with golden bands, which in different lights have a tessellated appearance; in some individuals the fourth segment is slightly fuscous.

Hab. India. (Coll. F. Smith.)

Sect. 2. *Abdomen black.*

12. TACHYTES NITIDULUS. B.M.

Crabro nitidulus, *Fabr. Ent. Syst.* ii. 294. 6; *Syst. Piez.* 309. 7.

Hab. India (Madras; Punjaub); Sumatra; Celebes.

The male of this species is covered with silvery pubescence, the fasciæ on the abdomen being very bright and widened laterally; the anterior tarsi rufo-testaceous.

13. TACHYTES MONETARIUS. B.M.

Female. Length 6–8 lines.—Black: the face, outer orbit of the eyes, and base of the mandibles covered with bright silvery pubescence; the vertex and the thorax covered with a thin short cinereous pubescence; the legs have a similar clothing; the tibiæ outside have a bright silvery pubescence; the calcaria, spines and claws ferruginous; wings subhyaline, the anterior pair fuscous towards their base, darkest at their anterior margins, the apical margins of the wings with a narrow fuscous cloud. Abdomen densely clothed with short rich golden pubescence, which in

different lights has a beautiful tessellated appearance; the base of the abdomen cinereous; beneath, the abdomen is naked, the apical margins of the segments being rufo-piceous.

The male resembles the female, but sometimes has the wings paler.

Hab. Northern India; The Punjaub. (Coll. Gen. Hearsay.)

14. Tachytes modestus. B.M.

Female. Length 6–6½ lines.—Black: the head and thorax clothed with short silky pale golden pubescence; on the face it is very dense and shining; the scape at the apex in front, the palpi and mandibles rufo-testaceous, the tips of the latter rufo-piceous; the legs pale ferruginous; the coxæ, trochanters and base of the femora black; wings hyaline, the nervures and tegulæ rufo-testaceous. Abdomen thinly covered with a changeable pale golden pubescence; the basal and three following segments have a band of silvery pubescence; the apical segment margined and covered with short silvery hairs.

Hab. India.

15. Tachytes Sinensis. B.M.

Female. Length 8 lines.—Black: the face densely covered with golden pubescence, the cheeks and outside of the mandibles thinly so. Thorax covered with pale yellow pubescence; the sides of the mesothorax, the post-scutellum, breast and hinder margin of the tubercles with a bright changeable golden pile; the legs have also a golden pile, and the tibiæ outside are covered with rich golden pubescence; the spines, calcaria and claws pale ferruginous; the wings flavo-hyaline, the nervures and tegulæ rufo-testaceous. The margins of the three basal segments of the abdomen have fasciæ of bright silvery pubescence, which are widest towards the lateral margins; the apical segment margined and covered with fusco-ferruginous pubescence.

The male closely resembles the female, but has the apical segment covered with silvery pubescence.

Hab. North China (Shanghai). (Coll. R. Fortune, Esq.)

Species of Africa.

Sect. 1. *Abdomen red and black.*

16. Tachytes dichroa.

Female. Length 8 lines.—Head and thorax black; the scape in front, the palpi and mandibles ferruginous; the face and cheeks

covered with pale golden pubescence. Thorax covered with pale golden pubescence, which is very dense on the sides of the meso- and metathorax; the latter has a central longitudinal channel, and is transversely striated, the apex truncate, the truncation transversely striated, the sides obliquely so; the wings yellowish hyaline, the nervures and tegulæ ferruginous; the legs and abdomen ferruginous; the coxæ and trochanters black; each segment has a large patch of shining silvery silky pubescence on each side; the apical segment covered with silvery pubescence, the margins carinated, the apex slightly emarginate.

Hab. The Gambia. (Coll. F. Smith.)

17. TACHYTES BASILICUS.

Lyrops basilicus, *Guér. Icon. Règn. Anim.* iii. 440.

Hab. Senegal.

Sect. 2. *Abdomen black.*

18. TACHYTES NATALENSIS. B.M.

Tachytes Natalensis, *Sauss. Mém. Soc. Phys. Genève*, xiv. fasc. 1. 21. 10. t. f. 4 ♂.

Hab. Port Natal.

19. TACHYTES ALBOCINCTUS.

Tachytes albocincta, *Lucas, Explo. Sc. Algér.* iii. 250. 219. t. 14. f. 2.

Hab. Algeria.

20. TACHYTES AURIFRONS.

Tachytes aurifrons, *Lucas, Explo. Sc. Algér.* iii. 246. 211.

Hab. Algeria.

21. TACHYTES HIRSUTUS. B.M.

Male. Length 6 lines.—Black: the head and thorax covered with a dense yellow pubescence, which has, in certain lights, a golden lustre; the face with a rich golden pubescence; the mandibles dark rufo-piceous; the palpi pale testaceous. Thorax: the wings hyaline, the nervures rufo-testaceous; the legs have a thin pale pubescence, and are covered with a pale golden pile; the apical joints of the tarsi ferruginous, the calcaria and claws ferruginous, the spines which arm the tibiæ and tarsi pale testaceous. Abdomen: the basal segment clothed with pale golden-yellow pubescence; the apical margins of the first, second and

third segments with a fascia of silvery pubescence; the four apical segments wanting.

Hab. Port Natal.

22. Tachytes velox.

Male. Length 6–8½ lines.—Black: the head and thorax covered with thin ochraceous pubescence; the face densely clothed with pale golden pubescence; the mandibles rufo-piceous at their apex; the palpi pale testaceous. Thorax: the wings fulvo-hyaline, the nervures ferruginous, the costal nervure and the tegulæ rufo-piceous; the apical margin of the anterior wings slightly fuscous; the tibiæ and tarsi at the base covered outside with pale golden downy pile. Abdomen densely clothed with golden pubescence, which in different lights has a tessellated appearance; beneath, smooth and shining; the apical margins of the second and two following segments rufo-piceous, the fifth and sixth margins with bands of golden pubescence.

Hab. Africa (Gambia, W. Africa). (Coll. F. Smith.)

This species resembles *T. monetarius*, but it differs in the colour of the mandibles, the pubescence of the face, head and thorax, and also in having the abdomen entirely covered: in *T. monetarius* the base of the abdomen is black and covered with cinereous pubescence; the wings are also differently coloured.

23. Tachytes agilis. B.M.

Male. Length 4 lines.—Black: the face and cheeks with a little silvery pubescence; the apical joints of the palpi pale testaceous, the basal joints rufo-fuscous. The mesothorax and scutellum finely and closely punctured; the metathorax rugose above, obliquely so at the sides; wings subhyaline, the nervures fusco-ferruginous; the tibiæ, tarsi and apex of the femora bright ferruginous. Abdomen smooth and shining, the margins of the segments with silvery fasciæ; the tip of the abdomen ferruginous.

Hab. Port Natal.

Species of Australia and New Zealand.

Abdomen black.

24. Tachytes tachyrrhostus. B.M.

Tachytes tachyrrhostus, *Sauss. Mém. Soc. Phys. Genèv.* xiv. fasc. 1. 18. 7. t. f. 5 ♂.

Female. Length 6–7 lines.—Black: the face covered with

silvery pubescence; the clypeus rounded anteriorly; the mandibles rufo-piceous at their apex. The mesothorax very convex, closely and finely punctured, not shining; the metathorax short, finely shagreened, rounded posteriorly; wings subhyaline, with a beautiful iridescence, the marginal cell without appendage; the nervures and scales ferruginous; the legs covered with silvery pile; the calcaria, spines and claws testaceous. Abdomen smooth and shining, the segments bordered with silvery bands.

Hab. New Holland.

25. TACHYTES HYPOLEIUS. B.M.

Female. Length 5½ lines.—Black: the head subopake and sparingly punctured; the clypeus rounded in front, the sides emarginate; the mandibles rufo-piceous. The mesothorax and scutellum slightly shining, with delicate scattered punctures; the metathorax about the same length as the mesothorax, widest at the base, the apex truncated; the disk finely shagreened, the truncation and sides strigose; the wings fuscous, with a slight violet iridescence; the marginal cell appendiculated, the third submarginal cell curved and of equal width; the posterior tibiæ covered with silvery pile within. Abdomen smooth and shining, covered with a thin silky pile, the apical margins of the segments with silvery bands; the apical segment smooth and shining, not margined at the sides; beneath, very smooth and shining.

Hab. Australia (Swan River).

26. TACHYTES NIGERRIMUS. B.M.

Larra nigerrima, *White, Zool. Erebus and Terror.*

Female. Length 5½ lines.—Intensely black and shining, the face with a thin silvery pubescence; the clypeus rounded anteriorly and emarginate in the middle. The mesothorax and scutellum sparingly and delicately punctured; the metathorax truncate behind, finely shagreened and opake; the truncation transversely striated, the sides obliquely so; the wings hyaline, the nervures black, the marginal cell without an appendage at the apex, having merely a fuscous line. Abdomen short and conical, very smooth and shining.

Hab. New Zealand.

27. TACHYTES SERICOPS. B.M.

Larra sericops, *White, Zool. Erebus and Terror.*

Female. Length 3¾ lines.—Black: the head and thorax covered with short cinereous pubescence, the face covered with silvery

pubescence; the anterior margin of the clypeus rounded; the tips of the mandibles rufo-piceous. The wings hyaline, the nervures rufo-fuscous, the marginal cell truncate at the apex; the hinder margin of the tegulæ pale testaceous; the legs have a changeable silvery pubescence. The abdomen with a brilliant silvery pile, most dense on the apical margins of the segments.

Hab. New Zealand.

Species of South America.

Sect. 1. *Abdomen red and black.*

28. Tachytes bicolor. B.M.

Larra bicolor, *Fabr. Syst. Piez.* 221. 12.

Hab. Brazil (Para; Villa Nova).

29. Tachytes Amazonum. B.M.

Female. Length 6 lines.—Head and thorax black; the face clothed with pale golden pubescence; the mandibles pale rufo-testaceous at the base; the cheeks with a thin golden pubescence. Thorax: the lateral and posterior margins of the mesothorax covered with bright golden pubescence; on the disk it is sparing, short and fulvous; the post-scutellum and sides of the metathorax with a dense golden pubescence; the sides beneath the wings, the breast, the coxæ and legs with a changeable golden lustre, very bright on the posterior tibiæ outside; the knees, tips of the joints of the tarsi, the anterior pair entirely, and the claw-joints ferruginous; the basal joint of the anterior tarsi more or less fuscous above; wings hyaline, the nervures ferruginous, the tegulæ pale rufo-testaceous. Abdomen ferruginous, having, when viewed longitudinally, a golden band on the margin of each segment, but when viewed sideways, the margins appear naked and the intervening parts covered with golden pile; the apical segment carinated at the sides and clothed with golden pubescence; in some examples the third, fourth, and sometimes the fifth segment have a transverse black stripe.

Male.—This sex resembles the female, but is smaller, and has the legs entirely of an obscure red; the abdomen fuscous, with the apical margins of the segments ferruginous; covered with golden pile, and exhibiting the same differences as the other sex.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

30. Tachytes concinnus. B.M.

Male. Length 4½ lines.—Head and thorax black; the face covered with pale golden pubescence; the mandibles yellow at the base and rufo-piceous towards the apex; the head and thorax have a long thin cinereous pubescence; the cheeks, prothorax, a spot before and another behind the wings, clothed with bright golden pubescence; the legs have a pale golden pile, the tarsi ferruginous, the calcaria and spines which arm the tibiæ of the same colour; the wings hyaline, the nervures and tegulæ pale ferruginous. Abdomen: the first and second segments red, the base of the former black; the apical margins of the three basal segments with bands of pale golden pubescence, the apical segment covered with bright silvery pubescence.

Hab. Brazil (Santarem).

31. Tachytes undatus. B.M.

Female. Length 3 lines.—Head and thorax black and closely punctured, the face with a silvery pubescence; the sides of the thorax and the legs have also a thin fine short silvery pubescence; the apical joints of the tarsi ferruginous; the spines which arm the tibiæ and tarsi pale testaceous; the wings hyaline and iridescent, the nervures black. Abdomen ferruginous, smooth and shining.

Hab. Brazil (Villa Nova).

32. Tachytes Chilensis.

Larra Chilensis, *Spin. Gay's Chili*, vi. 324. 2.

Hab. Chili. (Coll. F. Smith.)

33. Tachytes? Gayi.

Larra Gayi, *Spin. Gay's Chili*, vi. 324. 3.

Hab. Chili.

34. Tachytes rufitarsis.

Larra rufitarsis, *Spin. Gay's Chili*, vi. 323. 1.

Hab. Chili.

Sect. 2. *Abdomen black.*

35. Tachytes apiformis. B.M.

Female. Length 7 lines.—Black: the head and thorax clothed with short pale ochraceous pubescence; that on the face is dense

and silvery; tips of the mandibles rufo-piceous, the apical joints of the palpi pale rufo-testaceous. Thorax opake, the scutellum shining and punctured; wings subhyaline, the fore-wings tinged with yellow, their anterior margins fuscous, the nervures ferruginous; the calcaria, the spines which arm the tibiæ and tarsi, and the claw-joint of the latter, rufo-testaceous; the legs have a thin pale pubescence, most dense on the anterior femora; they have also in parts a pale golden lustre, most bright on the posterior tibiæ outside. Abdomen subovate, fuscous-black, the apical margins of the segments rufo-piceous and covered with fine golden pile, the apical segment with bright golden pubescence, beneath smooth and shining; the margins of the segments rufo-piceous.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

36. Tachytes bella.

Tachytes bella, *St. Farg. Hym.* iii. 248. 10.

Hab. Brazil.

37. Tachytes jucundus. B.M.

Female. Length 8 lines.—Black: the face and cheeks clothed with golden pubescence; the clypeus with large shallow punctures on each side, the anterior margin with a minute notch in the middle; the mandibles yellow towards their apex, the tips black, the palpi pale testaceous. Thorax: the margins of the mesothorax covered with bright golden pubescence; the sides of the thorax and the metathorax have a changeable bright golden pubescence; the disk of the thorax and the scutellum closely and finely punctured, interspersed with larger punctures; the wings flavo-hyaline, their apical margins faintly clouded, the nervures pale testaceous; the legs have a changeable golden lustre, that on the posterior tibiæ outside, very brilliant; the calcaria, spines and claws ferruginous. Abdomen covered with thin cinereous pile, the apical margins of the segments with pale golden fasciæ, the apical segment covered above with fusco-ferruginous pubescence; the sides carinate; beneath, smooth and shining, with scattered punctures; the apical margins of the segments rufo-piceous.

Hab. Brazil (Villa Nova).

38. Tachytes Pluto.

Female. Length 8 lines.—Deep black: the face shining, the sides covered with silvery pubescence; the anterior margin of the

clypeus with a transverse rugose furrow; the mandibles ferruginous a little beyond the middle, the tips black. The mesothorax smooth and slightly shining; the metathorax transversely rugose; wings black, slightly iridescent; the legs shining, the tibiæ with a cinereous pile within. Abdomen subelongate, pointed at the apex, the apical margins of the first and three following segments with fasciæ of silvery-white pubescence; the apical segment carinated at the sides and rather strongly punctured.

Hab. Brazil. (Coll. F. Smith.)

39. Tachytes 3-cinctus.

Liris tricincta, *Fabr. Syst. Piez.* 229. 5?
Tachytes 3-cincta, *Dahlb. Hym. Europ.* i. 125.

Hab. Island of St. Thomas.

40. Tachytes labiatus.

Sphex labiata, *Fabr. Ent. Syst.* ii. 211. 52.
Pompilus labiatus, *Fabr. Ent. Syst. Supp.* p. 247. 9; *Syst. Piez.* p. 191. 16.
Tachytes murina, *Dahlb. Hym. Europ.* i. 132 & type sp. in Mus. Kiel.

Hab. South America.

Species of North America.

Abdomen black.

41. Tachytes aurulentus. B.M.

Larra aurulenta, *Fabr. Syst. Piez.* 220. 7.
Say, Bost. Journ. i. 371. 3.

Hab. North America.

42. Tachytes dives.

Tachytes dives, *St. Farg. Hym.* iii. 247. 8.

Hab. Carolina.

43. Tachytes argentipes.

Female. Length 7 lines.—Black: the face, cheeks and mandibles at their base covered with silvery pubescence; the mandibles rufo-piceous; the vertex and thorax thinly covered with long pale pubescence; the lateral and posterior margins of the mesothorax, the post-scutellum, and a spot on the posterior

margins of the metathorax touching the coxæ, silvery pubescent; the wings hyaline and iridescent, the nervures black; the mesothorax and scutellum subopake, very closely punctured; the metathorax finely shagreened, and having behind a longitudinal furrow terminating at the verge of the truncation in a shallow shining fovea; the tibiæ and base of the tarsi covered with a glittering bright silvery pubescence. Abdomen black, with a violet iridescence; the apical margins of the four basal segments have bands of silvery pubescence; the apical segment with the margins carinated, above clothed with fusco-ferruginous pubescence.

Hab. St. Vincents. (Coll. F. Smith.)

44. Tachytes distinctus. B.M.

Female. Length 9 lines.—Black: the face densely clothed with bright golden pubescence; the mandibles rufo-piceous, palest at their base. The thorax thinly covered with long pale yellow pubescence; the posterior margin of the prothorax, the lateral and posterior margins of the mesothorax, the tubercles and sides of the metathorax densely covered with golden pubescence; the wings yellow-hyaline, the apical margins slightly fuscous, the nervures ferruginous; the tibiæ, tarsi, and tips of the femora, pale ferruginous. Abdomen: the apical margins of the three basal segments with bands of silvery pubescence.

Var. β. The femora ferruginous.

Hab. North America; Georgia; Philadelphia.

The species described by Fabricius under the name *Larra aurulenta* I consider to be a closely allied species, differing in being smaller,—usually about $6\frac{1}{2}$ lines; it differs also in having a minute notch in the middle of the anterior margin of the clypeus, and also in having a longitudinal groove extending from the base to the apex of the metathorax. This species is described by St. Fargeau as the *T. aurulenta* of Fabricius.

45. Tachytes trilobus.

Lyroda triloba, *Say, Bost. Journ.* i. 372. 4.

Hab. North America (Indiana).

46. Tachytes subitus.

Lyroda subita, *Say, Bost. Journ.* i. 372. 5.

Hab. North America (Indiana).

47. Tachytes pepticus.

Lyrops peptica, *Say, Bost. Journ.* i. 371. 2.

Hab. North America (Indiana).

Genus 5. GASTROSERICUS.

Gastrosericus, *Spin. Ann. Soc. Ent. Fr.* vii. 480 (1838).

This genus was established by Spinola for the reception of a single specimen of a male insect closely resembling a *Tachytes*, but differing in having only two complete submarginal cells. There are also figures of three other examples in the plates to Savigny's *Egypt*, tab. 12. figs. 17, 18, 19. All the species known are from Egypt.

1. Gastrosericus Waltlii.

Gastrosericus Waltlii, *Spin. Ann. Soc. Ent. Fr.* vii. 481 ♂.
Dahlb. Hym. Europ. i. 467. 1.

Hab. Egypt.

2. Gastrosericus Drewseni.

Gastrosericus Drewseni, *Dahlb. Hym. Europ.* i. 467. 2 ♀.

Hab. Egypt.

Genus 6. ASTATA.

Sphex, pt., *Schrank, Ins. Austr.* 384 (1781).
Astata, *Latr. Précis Car. Ins.* (1796).
Tiphia, *Panz. Faun. Germ.* fasc. 53 (1795–1805).
Larra, *Donov. Brit. Ins.* xii. 73.
Dimorpha, *Jurine, Hym.* 140 (1807).

1. Astata boops. B.M.

Sphex boops, *Schrank, Enum. Ins. Austr.* 384. 777.
Vill. Ent. iii. 249. 82.
Gmelin, i. 2734. 89.
Rossi, Faun. Etrus. i. 128. 284.
Tiphia abdominalis, *Panz. Faun. Germ.* 53. 5.
Larra pompiliformis, *Donov. Brit. Ins.* xii. 73. t. 420.
Astata abdominalis, *Latr. Hist. Nat.* xiii. 297. 1; *Nouv. Dict.* ed. 2. iii. 25.
St. Farg. Encycl. Méth. x. 144.

Astata boops, *Spin. Ins. Lig.* i. 72. 1.
Van d. Lind, Obs. ii. 27. 1.
Shuck. Foss. Hym. p. 97. 1.
Dahlb. Hym. Europ. i. 140. 72.
St. Farg. Hym. iii. 256. 1.
Guér. Icon. Règ. An. iii. 441. t. 71. f. 1.
Lucas, Explo. Sc. Algér. iii. 260. t. 12. f. 7.
Wesm. Hym. Foss. Belg. p. 73.
Astata victor, *Curtis, Brit. Ent.* vi. t. 261.
Astata Vanderlindenii, *Robert, Mag. Zool.* (*Guér.*) t. 76 (1843).

Hab. Britain; France; Italy; Germany; Austria; Sweden.

2. Astata stigma. B.M.

Dimorpha stigma, *Panz. Faun. Germ.* 107. 13.
Astata stigma, *Van d. Lind, Obs.* ii. 29. 4.
Dahlb. Hym. Europ. i. 139. 69.
Larra pinguis, *Zett. Ins. Lapp.* 436. 1.
Dahlb. Exercit. Hym. 50. 2.
Astata jaculator, *Smith, Zool.* iv. 1157.

Hab. Britain; Germany; France; Sweden; Norway; Lapland.

3. Astata oculata.

Dimorpha oculata, *Jurine, Hym.* 146. t. 9.
Astata oculata, *Van d. Lind, Obs.* ii. 28. 2.
Dahlb. Hym. Europ. i. 140. 72.

Hab. Europe.

4. Astata affinis.

Astata affinis, *Van d. Lind, Obs.* ii. 28. 3 ♂.
Dahlb. Hym. Europ. i. 142. 74.

Hab. Spain.

5. Astata Chilensis.

Astata Chilensis, *Sauss. Mém. Soc. Phys. Genève*, xiv. 23. 12.

Hab. Chili. (Coll. F. Smith.)

6. Astata Spinolæ.

Astata abdominalis, *Spin. Faun. Chil. Zool.* vi. 321. 1 (nec *Latr.*).
Astata Spinolæ, *Sauss. Mém. Soc. Phys. Genève*, xiv. 22. 11.

Hab. Chili.

7. Astata intermedia.

Astata intermedia, *Dahlb. Hym. Europ.* i. 140. 71.

Hab. Germany.

8. Astata Vanderlindenii.

Astata Vanderlindenii, *Robert, Mag. Zool.* (1833) t. 268.

Hab. Spain.

9. Astata histrio.

Astata histrio, *St. Farg. Hym.* iii. 257. 2 ♀.
Lucas, Explo. Sc. Algér. iii. 260.

Hab. Algeria.

10. Astata nigra.

Astata unicolor, *St. Farg. Hym.* iii. 258. 3 (1845) (nec *Say*).
Lucas, Explo. Sc. Algér. iii. 261 ♂.

Hab. Algeria.

11. Astata unicolor. Pl. VIII. fig. 1. B.M.

Astata unicolor, *Say, Exped. St. Peter's River* (*Keating*) (1823).

Hab. North America (Missouri).

12. Astata rufitarsis.

Male. Length 4 lines.—Black: the head, thorax, and base of the abdomen thinly clothed with long silvery-white pubescence; the mandibles, tarsi, and apex of the abdomen ferruginous; the pro- and mesothorax strongly punctured; the scutellum punctured at the sides, smooth and shining in the middle; the metathorax finely reticulated; the wings have a slight fuscous cloud which extends to the apex of the marginal cell, beyond which they are clear hyaline; the inferior wings hyaline; the nervures black.

Hab. Cape of Good Hope. (Coll. W. W. Saunders, Esq.)

13. Astata Australasiæ.

Astata Australasiæ, *Shuck. Trans. Ent. Soc.* ii. 72. 1.

Hab. New Holland. (Coll. F. Smith.)

14. Astata orientalis.

Male. Length 4 lines.—Black: the head and thorax covered with a thin silvery pubescence; the mesothorax and scutellum punctured, the latter smooth and shining in the middle; on the

mesothorax in front are four slightly raised smooth carinæ which terminate before the middle; the two lateral carinæ elevated at their extremity, forming minute tubercles; the wings flavo-hyaline, their apical margins clear, the nervures ferruginous. The margins of the segments of the abdomen depressed, the first, second and basal half of the third red; the extreme base of the abdomen red.

Hab. India. (Coll. W. W. Saunders, Esq.)

Genus 7. MISCOPHUS.

Larra, pt., *Panz. Faun. Germ.* fasc. 106.
Miscophus, *Jurine, Hym.* 206.

The species of this genus being of rare occurrence, and the male of the type, *M. bicolor*, varying from black and red to a totally black insect, it is most probable that one or more of the following species are only varieties of the type.

1. MISCOPHUS BICOLOR. B.M.

Miscophus bicolor, *Jurine, Hym.* 206. t. 11. gen. 25 ♀.
Latr. Gen. Crust. et Ins. iv. 72.
Guér. Dict. Class. Hist. Nat. x. 632.
Van d. Lind, Obs. ii. 25. 1.
Shuck. Foss. Hym. 92. 1.
Dahlb. Hym. Europ. 235. 135.
Smith, Zool. ii. 697 ♂ ♀.
St. Farg. Hym. iii. 237. 1. t. 27. f. 6 ♀.
Steph. Illustr. Mand. Supp. vii. 12. t. 42. f. 3 ♀.
Wesm. Hym. Foss. Belg. 72. 1.
Larra dubia, *Panz. Faun. Germ.* 106. 14 ♀.

Hab. Britain; France; Germany; Belgium; Scandinavia; Sweden.

2. MISCOPHUS CONCOLOR.

Miscophus concolor, *Dahlb. Hym. Europ.* i. 236. 137 ♂ ♀.
Wesm. Hym. Foss. Belg. 72. 2.

Hab. Scandinavia; Germany (Berlin); Belgium (Brussels).

3. MISCOPHUS NIGER.

Miscophus niger, *Dahlb. Hym. Europ.* i. 236. 136 ♂ ♀.

Hab. Germany; Gothland.

4. Miscophus spurius.

Larra spuria, *Dahlb. Exercit. Hym.* 56. 7.
Miscophus spurius, *Dahlb. Hym. Europ.* i. 237. 138 ♂ ♀.

Hab. Germany; Finland.

Genus 8. SOLIERELLA.

Solierella, *Spin. Gay's Chili*, vi. 349.

Antennæ inserted in the middle of the face. Venter convex. The anterior tarsi spinose in both sexes. The superior wings with one marginal and three submarginal cells, the second submarginal cell petiolated and receiving the two recurrent nervures.

1. Solierella miscophoides. Pl. VIII. fig. 2.

Solierella miscophoides, *Spin. Gay's Chili*, vi. 352. 1, *Atlas, Hym.* 2. f. 5.

Hab. Chili.

Genus 9. DINETUS.

Crabro, pt., *Fabr. Ent. Syst.* ii. 293 (1793).
Sphex, pt., *Fabr. Ent. Syst.* ii. 198 (1793).
Pompilus, pt., *Fabr. Syst. Piez.* 187 (1804).
Larra, pt., *Latr. Hist. Nat. Ins.* xiii. 296 (1805).
Dinetus, *Jurine, Hym.* 209 (1808).

1. Dinetus pictus.

Crabro pictus, *Fabr. Ent. Syst.* ii. 229. 20 ♂.
Panz. Faun. Germ. 17. 19 ♂. 72. 10 ♀.
Sphex gutta, *Fabr. Ent. Syst.* ii. 215. 72 ♀.
Crabro ceraunius, *Rossi, Faun. Etrus. Mant.* ii. *App.* 123. iii. ♀.
Pompilus guttatus, *Fabr. Ent. Syst. Supp.* 252. 34; *Syst. Piez.* 196. 44.
Larra picta, *Latr. Hist. Nat.* xiii. 296 ♂.
Spin. Ins. Lig. i. 73. 4.
Dinetus pictus, *Jurine, Hym.* 209. t. 11. gen. 26 ♀.
Panz. Krit. Revis. ii. 193.
Latr. Gen. Crust. et Ins. 73.
Guér. Dict. Class. Hist. Nat. ix. 496.
Van d. Lind, Obs. ii. 26. 1.
Shuck. Foss. Hym. 94. 1.
Dahlb. Hym. Europ. i. 232. 134 & 467.
St. Farg. Hym. iii. 234. 1. t. 27. f. 5 ♂.
Guér. Icon. Règ. Anim. t. 70. f. 10.

Dinetus pictus, *Steph. Illustr.* vii. *Supp.* 12. t. 42. f. 3.
Wesm. Hym. Foss. Belg. 73. 1.

Hab. Britain; France; Italy; Germany; Belgium; Austria.

Genus 10. PISON.

Alyson, pt., *Spin. Ins. Lig.* ii. 253 (1806–8).
Pison, pt., *Spin. Ins. Lig.* ii. 256.
Tachybulus, *Latr. Gen. Crust. et Ins.* iv. 75 (1809).
Nepliridia, *Brullé, Trans. Ent. Soc. Fr.* ii. 75 (1833).

1. Pison ater.

Alyson ater, *Spin. Ins. Lig.* ii. fasc. 4. 253. t. 3. f. 12 ♂.
Pison Jurinii, *Spin. Ins. Lig.* ii. 256.
St. Farg. et Serv. Ency. Méth. x. 143. 1.
Van d. Lind, Obs. ii. 39. 1.
St. Farg. Hym. iii. 230. 1.
Tachybulus niger, *Latr. Gen. Crust. et Ins.* iv. 75.
Pison ater, *Shuck. Trans. Ent. Soc.* ii. 75. 1.

Hab. Italy; France.

2. Pison punctifrons. B.M.

Pison punctifrons, *Shuck. Trans. Ent. Soc.* ii. 77. 5 ♀.

Hab. India or St. Helena.

3. Pison rugosus.

Female. Length 4 lines.—Black: clothed with silvery pubescence, especially the face, cheeks, legs, and apical margins of the segments of the abdomen; the sides of the thorax and metathorax, and also the base of the abdomen, with long glittering silvery-white pubescence; the head, mesothorax and scutellum coarsely punctured; the base of the metathorax coarsely obliquely striated, with a central deep longitudinal channel which is transversely striated as well as the truncated portion; the sides of the thorax and the pectus strongly punctured; the wings hyaline, the nervures testaceous; the first recurrent nervure received towards the apex of the first submarginal cell, and the second recurrent nervure received about the middle of the second submarginal cell. Abdomen shining, the basal segment with strong scattered punctures, the following segments much more finely punctured, and most densely so towards the apex.

Hab. India. (Coll. W. W. Saunders, Esq.)

This species belongs to Shuckard's subgenus (*Pisonitus*).

4. Pison regalis. Pl. VIII. fig. 3. B.M.

Pison regalis, *Smith, Trans. Ent. Soc.* New Ser. ii. 34. t. 8. f. 9 ♀.

Hab. North China (Ning-po-foo).

5. Pison xanthopus. B.M.

Nephridia xanthopus, *Brullé, Ann. Soc. Ent. Fr.* ii. 403.
Pison xanthopus, *Shuck. Trans. Ent. Soc.* ii. 75. 2.
Pison obscurus, *Shuck. Trans. Ent. Soc.* ii. 75. 3 (var.).

Hab. Cape of Good Hope.

6. Pison auratus.

Pison auratus, *Shuck. Trans. Ent. Soc.* ii. 78. 4 ♀.

Hab. Cape of Good Hope. (Type in Coll. F. Smith.)

7. Pison argentatus. B.M.

Pison (Pisonitus) argentatus, *Shuck. Trans. Ent. Soc.* ii. 79. 9 ♀.

Hab. The Mauritius.

8. Pison marginatus. B.M.

Female. Length 5 lines.—Black: the head opake, the face with silvery pubescence. The mesothorax and scutellum slightly shining, closely punctured; the metathorax obliquely rugose, the central channel without a carina, the truncation transversely rugose; the wings subhyaline, darkest towards their apical margins; the nervures testaceous, the outer margin of the tegulæ pale, the costal nervure fuscous; the two recurrent nervures uniting with the nervures of the petiolated second submarginal cell. Abdomen thinly covered with cinereous pubescence, very finely punctured, the apical margins of the segments pale testaceous.

Hab. Australia (Hunter River).

9. Pison perplexus. B.M.

Male. Length 5½ lines.—Black: the face thinly covered with silvery pubescence; the mesothorax and scutellum very closely and finely punctured; the metathorax rugose, indistinctly obliquely so, the central channel with a carina which terminates a little before the verge of the truncation, the latter transversely coarsely sulcate, and having a central deeply impressed line; the wings hyaline, their apical margins with a fuscous border; the nervures testaceous, the costal nervure fuscous, the two recurrent nervures received by the second submarginal cell distinctly within.

Abdomen closely punctured, the apical margins of the segments with uninterrupted silvery fasciæ.

Hab. Australia.

This species resembles the *P. Westwoodii*, but differs in having a carina in the channel of the metathorax, and in the sculpture; the neuration of the wings appears to be the same.

10. Pison vestitus. B.M.

Female. Length 5½ lines.—Black: the face covered with silvery pubescence, intermixed on the clypeus with longer fuscous hairs; the posterior margin of the prothorax covered with golden pubescence; the meso- and metathorax without pubescence, the latter in fresh examples would probably have a covering of pale pubescence; the mesothorax closely punctured, the scutellum less closely so; the metathorax shining and finely punctured, with a slightly impressed channel, in which is a carina that extends to the verge of the truncation; the latter transversely sulcate, and having a deep depression above; wings fuscous, the two recurrent nervures uniting with the nervures of the petiolated second submarginal cell; legs simple, without spines or cilia. Abdomen shining, the apical margins of the segments with fasciæ of golden pubescence.

Hab. Australia.

11. Pison Spinolæ. B.M.

Pison Spinolæ, *Shuck. Trans. Ent. Soc.* ii. 76. 4 ♀.
Pison Australis, *Sauss. Mém. Soc. Phys. Genève*, xiv. 11. t. f. 2 ♀?

Hab. Sydney; Van Diemen's Land. (Type in Coll. F. Smith.)

P. Australis is said to differ from *P. Spinolæ* in being smaller, in wanting the carinæ on the mandibles, and in having horizontal striæ on the metathorax, instead of oblique ones as in *P. Spinolæ*. On examining the typical specimen of *P. Spinolæ* and referring to the description, it is found that the carina is not on the external face of the mandible, but on the upper surface, so that when the mandibles are closed, it is not visible. The size of the species varies greatly; the metathorax of the typical specimen is only obliquely striated at the base; on the truncation, or posterior part, it is transverse.

12. Pison (Pisonitus) ruficornis. B.M.

Female. Length 3 lines.—Black: the face densely covered with silvery pubescence which has a faint golden tinge; the

palpi, mandibles and antennæ ferruginous, the tip of the latter fuscous. The mesothorax and scutellum very closely and delicately punctured; the metathorax obliquely and coarsely striated, having a central longitudinal channel and an abbreviated carina at the base; the truncation coarsely rugose, with a deep central longitudinal furrow; the wings hyaline and iridescent, the nervures testaceous, the stigma fuscous, the tegulæ pale testaceous; the legs ferruginous, the coxæ and femora dusky. Abdomen: the basal margin of the second segment depressed; the apical margin of the first segment narrowly, that of the second more broadly, and the four apical segments rufo-testaceous.

Hab. Australia (MacIntyre River).

13. Pison Westwoodii. B.M.

Pison Westwoodii, *Shuck. Trans. Ent. Soc.* ii. 77. 6 ♀.

Hab. Van Diemen's Land.

14. Pison Tasmanicus.

Male. Length 4¼–5 lines.—Black: the head and thorax subopake; the face covered with silvery pubescence; the head, thorax and legs with a long thinly scattered griseous pubescence; the metathorax obliquely striated, the carina which usually runs down the central channel obsolete; wings fusco-hyaline, the apical margins of the wings with a fuscous border; the first recurrent nervure entering the first submarginal cell at its extreme apex, the second received by the third submarginal cell at its extreme base; the intermediate and posterior tibiæ with a few short scattered spines; the apical margins of the segments of the abdomen with fasciæ of silvery pubescence.

Hab. Van Diemen's Land.

Very probably the male of *P. Spinolæ*.

15. Pison obliquus.

Female. Length 4 lines.—Black: the head and thorax opake, the face covered with silvery pubescence; the metathorax obliquely striated, the central channel nearly obsolete, shallow, and with the striæ crossing the depression; the truncation transversely striated; the wings subhyaline, their apical margins with a fuscous cloud; the apical margins of the segments with indistinct bands of silvery pile; probably, in fine examples, the bands are distinct.

Hab. Van Diemen's Land. (Coll. W. W. Saunders, Esq.)

The neuration of the wings is the same as that of *P. Spinolæ*.

16. Pison rufipes.

Pison (Pisonitus) rufipes, *Shuck. Trans. Ent. Soc.* ii. 79. 8 ♀.

Hab. Van Diemen's Land. (Type in Coll. F. Smith.)

17. Pison morosus. B.M.

Pison morosus, *White, Voy. Erebus and Terror.*

Female. Length 4 lines.—Jet-black: the face with a little silvery pubescence, the head opake. The mesothorax very delicately and closely punctured; an abbreviated shining raised line on each side over the tegulæ; the metathorax obliquely strigose, the central channel slightly impressed, the striæ uniting and crossing it; the truncation transversely rugose, its margin slightly rounded; the wings hyaline, their apical margins slightly fuscous, the two recurrent nervures uniting with the nervures of the petiolated submarginal cell. Abdomen smooth and shining, the margins of the segments slightly depressed.

Hab. New Zealand.

18. Pison Paraensis.

Pison Paraensis, *Spin. Mem. Accad. Torino*, xiii. 58. 40 (1853).

Hab. Brazil (Para).

19. Pison Chilensis.

Pison Chilensis, *Spin. Gay's Chili*, vi. 326. 1.

Hab. Chili.

20. Pison areolatus.

Pison areolatus, *Spin. Gay's Chili*, vi. 327. 2.

Hab. Chili.

21. Pison lævis. B.M.

Female. Length 3½ lines.—Head opake, the face covered with silvery pubescence; the metathorax smooth and shining, with a few scattered punctures at the sides, the central channel without a carina; a deep elongate-ovate fossula in the middle of the truncation, the margins of the latter rounded; the wings slightly fuscous, the nervures black; the two recurrent nervures uniting with the nervures of the petiolated submarginal cell. Abdomen smooth and shining, very delicately punctured, the margins of the segments slightly depressed.

Hab. Georgia.

Fam. 5. BEMBICIDÆ.

The labrum produced into a beak.

Bembicites, *Latr. Hist. Nat. Ins.* (1802).
Bembecinæ, *Fallen, Nov. Hym. Disp. Meth.* (1813).
Bembicides, *Latr. Gen. Crust. et Ins.* iv. (1807).
Bembicites, *Newm. Ent. Mag.* ii. (1834).
Bembicidæ, *Westw. Introd. Class. Ins.* (*Synop.*) (1840).

Genus 1. BEMBEX.

Apis, pt., *Linn. Syst. Nat.* i. 957 (1766).
Bembyx, pt., *Fabr. Syst. Ent.* 361 (1775).
Bembex, pt., *Fabr. Mant.* 285 (1787).
Vespa, pt., *Gmelin*, 2768. 153 (1789).

1. Bembex rostrata. B.M.

Apis rostratra, *Linn. Faun. Suec.* No. 1700; *Syst. Nat.* i. 957. 25. *Vill. Ent.* iii. 294. 21.
Bembex rostrata, *Fabr. Syst. Ent.* 362. 3; *Ent. Syst.* ii. 248. 3; *Syst. Piez.* 223. 5.
Panz. Faun. Germ. i. 10; *Krit. Revis.* ii. 132.
Latr. Hist. Nat. Crust. et Ins. xiii. 300. 1; *Gen. Crust. et Ins.* iv. 98.
Oliv. Encycl. Méth. iv. 29. 3.
Duméril, Dict. Sc. Nat. iv. 297; *Icon. Entom. et Consid.* i. t. 30. f. 10.
Guér. Icon. R. Anim. Ins. iii. 438. t. 70. f. 7.
Van d. Lind, Obs. Hym. Europ. ii. 9. 1.
Dahlb. Hym. Europ. i. 173. 107.
St. Farg. Hym. iii. 260. 1.
Lucas, Explo. Sc. Algér. iii. 263.
Wesm. Hym. Foss. Belg. p. 74.
Vespa (Bembex) rostrata, *Gmel.* 2768. 153.
Vespa armata, *Sulzer, Hist. Ins.* t. 27. f. 10.
Reaum. Gen. t. 27. f. 10.
Christ. Hym. p. 220. t. 29. f. 2 ♂.

Hab. Italy; France; Germany; Austria; Sweden; Finland; Algeria.

2. Bembex olivacea. B.M.

Bembex olivacea, *Fabr. Mant. Ins.* i. 285. 4 ♂.
Rossi, Faun. Etrus. ii. 81. 858 ♂ ♀.
Latr. Gen. Crust. et Ins. iv. 99.
Van d. Lind, Obs. ii. 13. 7.

Bembex olivacea, *Dahlb. Hym. Europ.* i. 178. 113.
Brullé, Hist. Nat. Il. Canar. iii. 90. 46.
St. Farg. Hym. iii. 268. 6.
Lucas, Explo. Sc. Algér. iii. 263.
Bembex glauca, *Fabr. Mant. Ins.* i. 285. 5 ♀; *Ent. Syst.* ii. 249. 5; *Syst. Piez.* 224. 8.
Spin. Ins. Lig. ii. 174. 3.
Oliv. Encycl. Méth. iv. 291. 6.
St. Farg. Hym. iii. 270. 7.
Lucas, Explo. Sc. Algér. iii. 263.
Bembex olivata, *Dahlb. Hym. Europ.* i. 490 (var.).

Hab. France; Italy; Germany; Spain; Portugal; Algeria; Tranquebar.

3. Bembex oculata. B.M.

Bembex oculata, *Jurine, Hym.* 175. t. 10. gen. 16 ♂.
Panz. Faun. Germ. 84. 22; *Krit. Revis.* ii. 132.
Spin. Ins. Lig. ii. 173.
Van d. Lind, Obs. ii. 13. 6.
Dahlb. Hym. Europ. i. 178. 112.
Lucas, Explo. Sc. Algér. iii. 262.

Hab. France; Germany; Italy.

4. Bembex repanda. B.M.

Bembex repanda, *Latr. Gen. Crust. et Ins.* iv. 98. 3.
Van d. Lind, Obs. ii. 10. 3.
Dahlb. Hym. Europ. i. 177. 109.
Lucas, Explo. Sc. Algér. iii. 263.
Bembex Latreillii, *St. Farg. Hym.* iii. 266. 5.

Hab. France.

5. Bembex labiata.

Bembex labiata, *Fabr. Ent. Syst. Supp.* 259. 5; *Syst. Piez.* 224. 9.
Coqueb. Illustr. dec. ii. 61. t. 15. f. 1.
Van d. Lind, Obs. ii. 14. 8.
Dahlb. Hym. Europ. i. 179. 114.

Hab. France.

6. Bembex bidentata. B.M.

Bembex bidentata, *Van d. Lind, Obs.* ii. 11. 5.
Dahlb. Hym. Europ. i. 178. 111.
St. Farg. Hym. iii. 269. 2.

Hab. France; Italy.

7. Bembex tarsata. B.M.

Bembex tarsata, *Latr. Gen. Crust. et Ins.* iv. 98. 2.
Van d. Lind, Obs. ii. 10. 2.
Dahlb. Hym. Europ. i. 176. 108.
St. Farg. Hym. Europ. iii. 265. 4.

Hab. South of France; Paris; Turin.

8. Bembex sinuata. B.M.

Bembex sinuata, *Panz. Faun. Germ.* 86. 13; *Krit. Revis.* p. 132.
Latr. Gen. Crust. et Ins. iv. 98. 4.
Van d. Lind, Obs. ii. 10. 4.
Dahlb. Hym. Europ. i. 117. 110.

Hab. Germany; France.

9. Bembex dissecta.

Bembex dissecta, *Dahlb. Hym. Europ.* i. 487. 6.

Hab. South of Europe.

10. Bembex Wildei.

Bembex Wildei, *Dahlb. Hym. Europ.* i. 491. 25.

Hab. Central Europe.

11. Bembex undata.

Bembex undata, *Dahlb. Hym. Europ.* i. 487. 7.

Hab. Central Europe.

12. Bembex vidua.

Bembex vidua, *St. Farg. Hym. Europ.* i. 264. 3.

Hab. Lombardy.

13. Bembex Megerlei.

Bembex Megerlei, *Dahlb. Hym. Europ.* i. 492. 34.

Hab. Austria.

14. Bembex neglecta.

Bembex neglecta, *Dahlb. Hym. Europ.* i. 489. 12.

Hab. Austria.

15. Bembex melæna. B.M.

Male. Length 7 lines.—Black: the scape in front, the ante-

rior half of the clypeus, a line on the inner orbit of the eyes, the labrum and mandibles, white; the tips of the mandibles ferruginous; the head, thorax and base of the abdomen have a thin griseous pubescence; beneath, the hinder margin of the metathorax sometimes with a yellow spot; the coxæ, trochanters and femora black; the tips of the latter, the tibiæ and tarsi, pale yellow; the intermediate femora serrated beneath; the tibiæ have a black stripe behind; the wings hyaline, the nervures and hinder margin of the tegulæ ferruginous. Abdomen black: the second segment with a large compressed curved tooth beneath; the sixth segment with a small trigonate tubercle in the middle.

Var. β. The basal segment with a narrow line on each side, and the two following segments with a curved stripe on each side.

Hab. Albania.

16. Bembex Rossii.

Bembex Rossii, *Dahlb. Hym. Europ.* i. 492. 31.

Hab. Spain.

17. Bembex notata.

Bembex notata, *Dahlb. Hym. Europ.* i. 491. 28.

Hab. Rhodes.

18. Bembex turca.

Bembex turca, *Dahlb. Hym. Europ.* i. 488. 11.

Hab. Rhodes.

19. Bembex basalis.

Bembex basalis, *Dahlb. Hym. Europ.* i. 490. 20.

Hab. Rhodes.

20. Bembex flavescens.

Male. Length 7 lines.—Head and thorax black; the labrum, clypeus, inner orbit of the eyes, the scape in front, and the mandibles, yellow; the tips of the mandibles ferruginous; the outer orbit of the eyes yellow; the flagellum fulvous beneath, and four or five of the apical joints subpectinate beneath. Thorax: a narrow line on the collar, two abbreviated ones on the mesothorax in front, a stripe over the tegulæ, a narrow line on the posterior margin of the scutellum and post-scutellum, a curved one on the metathorax, and its posterior angles, yellow; the sides of the thorax irregularly maculated with yellow; the legs yellow,

with a black spot on the trochanters and another at the extreme base of the femora beneath. Abdomen yellow, the extreme base black; a transverse black line in the middle of the posterior margin of the first segment, and two similar lines at the base of the three following segments; the second segment beneath black at its base, with a compressed curved acute tooth in the middle; the second segment has a narrow black line at its basal margin, and the two following a bilobed spot; an angular spot at the base of the sixth segment.

Hab. Teneriffe. (Coll. F. Smith.)

21. Bembex chlorotica.

Bembex chlorotica, *Spin. Ann. Soc. Ent. Fr.* vii. 469. 21 (1838). *St. Farg. Hym.* iii. 276. 11.

Hab. Egypt.

22. Bembex soror.

Bembex soror, *Dahlb. Hym. Europ.* i. 489. 13.

Hab. Egypt.

23. Bembex lusca. B.M.

Bembex lusca, *Spin. Ann. Soc. Ent. Fr.* vii. 467. 20 (1838). *St. Farg. Hym.* iii. 274. 10.

Hab. Egypt.

24. Bembex Westermanni.

Bembex Westermanni, *Spin. Ann. Soc. Ent. Fr.* vii. 470. 13 (1838).

Hab. Egypt.

25. Bembex pectoralis.

Bembex pectoralis, *Dahlb. Hym. Europ.* i. 489. 17.

Hab. Nubia.

26. Bembex Fischeri.

Bembex Fischeri, *Spin. Ann. Soc. Ent. Fr.* vii. 470 (1838).

Hab. Africa.

27. Bembex Capensis.

Bembex Capensis, *St. Farg. Hym.* iii. 273. 9.

Hab. Cape of Good Hope.

28. Bembex carinata. B.M.

Female. Length 7 lines.—Black: the clypeus, labrum, scape in front, and the mandibles, yellow; the orbits of the eyes rufo-testaceous; the vertex and cheeks have a long hoary pubescence. Thorax thinly clothed with hoary pubescence, which is most dense on the metathorax; the posterior margin of the scutellum and post-scutellum yellow, sometimes entirely black; the wings hyaline, the nervures pale ferruginous; the legs reddish-yellow, with coxæ, trochanters and base of the femora black; a black spot on the anterior and intermediate tibiæ beneath. Abdomen: the basal segment with a transverse yellow band attenuated in the middle; the following segments have a broad biarcuate band; beneath black; the three intermediate segments have an angular yellow spot at their lateral margins.

The male closely resembles the female, and only differs in having a central longitudinal carina on the second and sixth segments.

Hab. Cape of Good Hope.

29. Bembex fuscipennis.

Bembex fuscipennis, *St. Farg. Hym.* iii. 271. 8.

Hab. Cape of Good Hope. (Coll. F. Smith.)

30. Bembex tricolor.

Bembex tricolor, *Dahlb. Hym. Europ.* i. 180.

Hab. Africa (Cape of Good Hope); Guinea.

31. Bembex venator. B.M.

Female. Length 6 lines.—Black: the head and thorax covered with griseous pubescence; the clypeus, a transverse line above, the scape in front, two minute spots in front of the anterior stemma, the labrum and mandibles, yellow; the tips of the latter ferruginous; a bilobed black spot at the base of the clypeus; the flagellum fulvous beneath; the outer orbit of the eyes yellow; a yellow stripe on the tegulæ and another on each side of the thorax before the insertion of the wings; the femora yellow in front towards their apex; the tibiæ and tarsi yellow; the tibiæ have a black stripe outside; the wings hyaline, their nervures ferruginous. Abdomen: all the segments have a narrow biarcuate fascia, the first widely interrupted, the second slightly so, the following continuous; beneath, immaculate.

Hab. Cape of Good Hope.

32. Bembex undulata.

Bembex undulata, *Spin. Ann. Soc. Ent. Fr.* vii. 468 (1838). *Dahlb. Hym. Europ.* i. 487. 3.

Hab. Cape of Good Hope.

33. Bembex grisescens.

Bembex grisescens, *Dahlb. Hym. Europ.* i. 489. 16.

Hab. Port Natal.

34. Bembex intermedia.

Bembex intermedia, *Dahlb. Hym. Europ.* i. 491. 27.

Hab. Port Natal.

35. Bembex Natalis.

Bembex Natalis, *Dahlb. Hym. Europ.* i. 489. 14.

Hab. Port Natal.

36. Bembex flavifrons. B.M.

Female. Length 8–8½ lines.—Black: the face yellow, a black spot above the insertion of each antenna, and two spots at the base of the clypeus; the labrum and mandibles yellow, the latter black at their tips; the scape in front and the outer orbit of the eyes broadly yellow. The prothorax yellow; the sides of the mesothorax, two abbreviated lines in front, and a transverse spot at its posterior margin, yellow; a spot on each side of the scutelium, a line on the post-scutellum, and an arcuate stripe on the metathorax, yellow; the thorax beneath and the legs yellow; the knees black; the wings hyaline, the nervures testaceous. Abdomen: the basal segment has a biarcuate fascia, narrow in the middle and broadly expanded at the sides, yellow; the second segment has a broad yellow fascia at the base, its posterior margin biarcuate, with two black spots at the basal margin; the three following segments have a narrower biarcuate fascia in the middle; beneath, the two basal segments yellow, the second having a central longitudinal black stripe; the two following segments with a large angular macula on each side.

Var. α. The fascia on the basal segment interrupted; beneath, all the segments black at their base, with lateral yellow spots.

Hab. Australia.

37. Bembex flavipes. B.M.

Female. Length 5 lines.—Head yellow, the face above the clypeus black; a transverse reddish-yellow line in front of the anterior stemma, which unites with one at the inner orbit of the eyes. Thorax black above and yellow beneath; the prothorax yellow; the mesothorax has a broad stripe on each side, two in the middle, and a transverse abbreviated stripe at its posterior margin; the posterior margin of the scutellum and the post-scutellum yellow; a curved bisinuated yellow stripe on the metathorax behind; the wings hyaline, the tegulæ yellow; a large spot on the breast, a small one on the coxæ and trochanters, and the extreme tips of the femora, black. Abdomen yellow beneath and black above; a bilobed yellow macula at the extreme base of the first segment; segments 1–5 with a glaucous-yellow band on each side, which is deeply sinuated on its anterior margin; the bands on the fifth segment united; the apical segment with a black line in the middle, the sides being ferruginous.

Hab. Australia.

38. Bembex palmata.

Male. Length 7½ lines.—Black: the clypeus, labrum, mandibles and scape yellow; the flagellum yellow beneath; the six basal joints of the flagellum gradually thickened, the seventh and following joints half the thickness of the sixth and serrated beneath; the inner orbit of the eyes with a broad yellow stripe which does not quite extend to the vertex, a yellow stripe in the middle of the face terminating at the anterior stemma. Thorax: the posterior margin of the prothorax, an epaulet over the tegulæ, and a spot on each side of the scutellum, yellow; beneath, a large irregular macula on the sides of the prothorax, a second on the sides of the pectus, and a third on each side of the metathorax, yellow; the legs yellow, the anterior tarsi broadly dilated; wings subhyaline, the nervures ferruginous. Abdomen: segments 1–5 have on each side a pale stripe, which is pointed within, the first and third being the narrowest; beneath, the second segment yellow, with a large stout raised central black carina, the posterior margin of the segment black; the three following segments have a yellow spot on each side.

Hab. Australia? (Coll. F. Smith.)

39. Bembex variabilis. B.M.

Female. Length 5–5½ lines.—Black: the head with a griseous pubescence; the antennæ obscurely testaceous beneath; the scape yellow in front; the labrum, clypeus and mandibles yellow;

two black spots at the base of the clypeus, the tips of the mandibles ferruginous; a triangular spot at the base of the clypeus, an abbreviated line at the inner orbit of the eyes, and the outer orbit entirely yellow. Thorax thinly covered with griseous pubescence, most dense on the metathorax; a line on the collar, a spot on the tegulæ in front, a line at their inner margin, and a spot on each side of the scutellum, yellow; the coxæ and femora black, the latter yellow at their apex beneath; the tibiæ and tarsi yellow; the tibiæ and basal joint of the tarsi black behind, the anterior tarsi furnished with long cilia. Abdomen with the first segment clothed with long griseous pubescence; on the following segments it is very short, suberect and griseous; the first segment has a straight interrupted yellow band, segments 2–5 have an interrupted biarcuate yellow band.

Var. α. The basal half of the clypeus black.

Var. β. The antennæ pale testaceous beneath, the apical segment of the abdomen with two yellow spots.

Var. γ. Two abbreviated lines on the mesothorax, a transverse line in the middle of the posterior margin of the mesothorax, a curved line on the scutellum and post-scutellum, and the coxæ and trochanters spotted with yellow; the sides of the thorax with large yellow spots.

Hab. Australia (Hunter River; Port Essington; Swan River).

This species closely resembles *B. furcata*, but it is smaller and black behind, and the abdomen is covered with griseous pubescence. Var. γ. may possibly be a distinct species: a single specimen only has been received from Swan River.

40. Bembex raptor. B.M.

Male. Length 6½ lines.—Black: the face covered with silvery-white pubescence; the anterior margin of the clypeus white; a line on the inner orbit of the eyes, three united spots in front of the anterior stemma, a spot between the antennæ and the scape in front, pale yellow; the outer orbit of the eyes yellow. The prothorax yellow, with an irregular-shaped black spot on each side, and a transverse oblong black spot above; the meso- and metathorax black; the former has two central short stripes in front, an epaulet over the tegulæ, the posterior margin of the scutellum and post-scutellum, yellow; a curved yellow macula on each side of the metathorax, and two oblong spots beneath the wings; the legs yellow, with the coxæ, trochanters and base of the femora black; also a black spot on the anterior and intermediate tibiæ beneath; the wings clear hyaline, the nervures black. Abdomen: all the segments have a borad glaucous-yellow band; that on the basal segment is notched in the middle

of its anterior margin; the four following have their anterior margins notched in the middle and sinuated on each side, their posterior margins straight, with a notch in the middle; the sixth and seventh segments yellow, the latter with a black line in the middle; beneath, the posterior margins of the segments have a yellow fascia which is attenuated in the middle.

Hab. Adelaide.

41. Bembex vespiformis. B.M.

Female. Length 8 lines.—Black: the face covered with silvery-white pubescence, that on the vertex griseous; the scape more or less yellow in front; the flagellum rufo-testaceous beneath; the anterior margin of the clypeus, the labrum, and mandibles at their base, yellow. Thorax: the scutellum and post-scutellum have a pale yellow dot on each side; the metathorax densely clothed with cinereous pubescence; wings subhyaline, the nervures black; the coxæ and femora black, the anterior femora in front and the intermediate and posterior pairs at their apex above, black; the tibiæ and tarsi yellow; the anterior and intermediate tibiæ have a black stripe outside, the posterior pair being black beneath; the basal joints of the anterior tarsi are black outside and furnished with long cilia. Abdomen: a large macula on each side of the basal segment, pointed within, and a small angular macula at the extreme lateral margins of the second segment, both of a pale yellowish-white; the apical segment and apical margin of the fifth segment in the middle, orange-yellow; beneath, entirely yellow.

Male.—Closely resembles the female, but with the scape entirely yellow; the second segment with an elevated carina which has its superior margin black; the apical segment black.

Hab. Adelaide.

42. Bembex atrifrons. B.M.

Female. Length 7 lines.—Black: the labrum yellow, with the base, sides and apex more or less black; the outer orbit of the eyes, and a minute spot on the scape in front, yellow. Thorax: a narrow line on the posterior margins of the prothorax and scutellum yellow; a spot on the tegulæ, a line over them and the tubercles, yellow; the legs yellow, the coxæ, trochanters, and base of the femora black; a fusco-ferruginous stripe on the anterior and intermediate tibiæ above, and the anterior tarsi furnished with long ferruginous cilia; the wings hyaline, their nervures ferruginous. Abdomen: the basal segment has on each side a short narrow glaucous stripe, and the

three following segments a narrow biarcuate glaucous stripe, slightly interrupted in the middle; beneath, entirely black.

Hab. Australia (Swan River).

43. Bembex furcata. B.M.

Bembex furcata, *Erichs. Wiegm. Arch.* 1842, p. 266. 240.

Hab. Van Diemen's Land; Australia (Swan River).

Erichson describes the male as having the labrum black, and the clypeus with a yellow macula; a series of examples exhibits every variety, from yellow to black.

44. Bembex lunata.

Bembex lunata, *Fabr. Ent. Syst.* ii. 249. 6; *Syst. Piez.* 224. 10. *Dahlb. Hym. Europ.* i. 492. 33.

Hab. Tranquebar.

45. Bembex trepanda. B.M.

Bembex trepanda, *Dahlb. Hym. Europ.* i. 181.

Hab. India.

46. Bembex sulphurescens. B.M.

Bembex sulphurescens, *Dahlb. Hym. Europ.* i. 180.

Hab. India (Madras; The Punjaub).

47. Bembex melancholica. B.M.

Female. Length 8½ lines.—Head and thorax black; the clypeus, sides of the face, scape in front, labrum, mandibles and outer orbit of the eyes, livid-yellow; the clypeus has two black spots at the base. The posterior margin of the prothorax, a line on each side of the mesothorax, two stripes on the disk, and a transverse one at its posterior margin united to the central stripes, livid-yellow; a transverse curved stripe on the scutellum and post-scutellum, and also the metathorax, livid-yellow; an angular black spot on each side of the metathorax, from which a narrow black line runs obliquely inwards, meeting in the middle of the base; a narrow black line runs from the outer angle of the spot down the sides of the metathorax; the thorax livid-yellow beneath, with a black spot in the middle of the pectus, and one or two smaller ones at the sides; the legs livid-yellow, with a black stripe on the tibiæ and femora behind. Abdomen blue-black; segments 1–5 have a broad livid fascia, the first narrowed in the middle,

the posterior margins of the others biarcuate; the second and third have on each side a transverse black spot; the fourth and fifth have their anterior margins bisinuated; beneath, the posterior margin of the first segment, and a spot on each side of the following segments, livid-yellow; the abdomen covered above with short thin black pubescence.

The male only differs in having the middle of the basal margin of the first segment of the abdomen beneath, produced into an obtuse tubercle.

Hab. Sumatra.

48. Bembex ciliata. B.M.

Bembex ciliata, *Fabr. Syst. Piez.* p. 226. 21.
Dahlb. Hym. Europ. i. 488. 11.
St. Farg. Hym. Europ. i. 279. 14.

Hab. Brazil (Para; Santarem; Tapajos).

49. Bembex gratiosa. B.M.

Female. Length 6 lines.—Head black; the inner orbit of the eyes, the clypeus, scape in front, labrum and mandibles, of a glaucous-yellow; tips of the mandibles ferruginous; the flagellum fulvous beneath and fuscous above, the basal joint black; a glaucous spot in front of the anterior stemma. Thorax black above and of a livid-yellow beneath; the prothorax, lateral margins of the mesothorax, two stripes on the disk dilated anteriorly and recurved posteriorly and united, the hinder margin of the scutellum, the post-scutellum, a curved stripe on the metathorax and its lateral angles, pale yellow; the legs yellow, in some examples with a narrow black line on the femora above; the wings clear hyaline, the nervures pale ferruginous. Abdomen pale yellow; the extreme base black, and a curved spot on the basal segment above; a broad black band on the basal margin of the second segment, which is suddenly narrowed at the sides; the apical margin has a narrow black band, which is widest and acute in the middle; the following segments are similarly banded, but the bands are narrower; the apical segment has a sharp tooth on each side, and the apex is deeply notched.

The male differs in having a transverse raised carina on the second segment of the abdomen beneath, which is terminated at each end by a minute acute tooth; the apical segment has a tooth on each side and a deep notch at the apex, as in the other sex.

Hab. Brazil (Tapajos).

50. Bembex placida.

Male. Length 5–6 lines.—Black: the scape in front, clypeus, labrum and mandibles, yellow; the base of the clypeus and orbits of the eyes pale testaceous; the face thinly covered with yellowish pubescence. Thorax: the posterior margin of the prothorax, the lateral margins of the mesothorax, two stripes on the disk, the hinder margin of the scutellum, the post-scutellum, a curved line on the metathorax, and its lateral angles, yellow; beneath, yellow; the pectus black; also a black stripe beneath the wings; a black spot on the trochanters beneath, another at the extreme base of the femora and tibiæ; a narrow black stripe at the apex of the femora above, and a line on the posterior tibiæ within; the claws ferruginous; the wings hyaline, the nervures black; a yellow spot on the tegulæ in front. Abdomen: the basal segment has a slightly interrupted yellow fascia, the second segment a broad interrupted fascia on each side enclosing a black dot; the three following segments have on each side a curved stripe; the sixth segment has a slightly interrupted straight fascia, the apical segment being yellow at its apex; beneath yellow, with a central row of black spots, the second segment having on each side at its base a small oblique black spot; the sixth segment with a minute acute spine in the centre.

Hab. Columbia. (Coll. W. W. Saunders, Esq.)

51. Bembex Americana.

Bembex Americana, *Fabr. Ent. Syst.* ii. 250. 9; *Syst. Piez.* 225. 13. *Dahlb. Hym. Europ.* i. 183.

Hab. South America.

52. Bembex Brullei.

Bembex Brullei, *Guér. Voy. Coq. Zool.* pt. 2. p. 263, *Atlas*, t. 9. f. 3. *Spin. Gay's Chili*, vi. 318. 1.

Hab. Chili.

53. Bembex sulphurea.

Bembex sulphurea, *Spin. Gay's Chili*, vi. 319. 2.

Hab. Chili.

54. Bembex ventralis.

Bembex ventralis, *Dahlb. Hym. Europ.* i. 180. *St. Farg. Hym.* iii. 278. 13.

Hab. Chili; Valparaiso. (Coll. F. Smith.)

55. Bembex fasciata. B.M.

Bembex fasciata, *Fabr. Syst. Piez.* p. 224. 6.
Say, Bost. Journ. i. 367. 2.
Dahlb. Hym. Europ. i. 184.
Bembex Spinolæ, *St. Farg. Hym.* iii. 277. 12.

Hab. N. America (St. John's Bluff, East Florida).

56. Bembex longirostra.

Bembex longirostra, *Say, Bost. Journ.* i. 366. 1.

Hab. Mexico.

57. Bembex monodonta. B.M.

Bembex monodonta, *Say, Narr. Exped. St. Peter's River, Append.* 69.

Hab. Pennsylvania.

58. Bembex inscripta.

Bembex inscripta, *Dahlb. Hym. Europ.* i. 183.

Hab. ——?

59. Bembex affinis.

Bembex affinis, *Dahlb. Hym. Europ.* i. 182.

Hab. ——?

Genus 2. MONEDULA.

Vespa, pt., *Linn. Syst. Nat.* i. 574. ed. 10 (1758).
Apis, pt., *De Geer, Ins.* iii. 507 (1773).
Bembex, pt., *Fabr. Ent. Syst.* ii. 247 (1793).
Monedula, *Latr. Gen. Crust. et Ins.* iv. 99 (1809).
Stictia, *Illig. ed. Rossi, Faun. Etrus.* (1807).

1. Monedula signata. B.M.

Vespa signata, *Linn. Syst. Nat.* i. 574. 14. ed. 10 (1758); *Syst. Nat.* i. 952. 24. ed. 12.
Apis vespiformis, *De Geer, Ins.* iii. 570. 2. t. 28. f. 3.
Bembex signata, *Fabr. Syst. Ent.* p. 361. 2; *Syst. Piez.* 223. 3.
Oliv. Encycl. Méth. iv. 290. 2.
Monedula signata, *Latr. Gen. Cr. et Ins.* iv. 100.
St. Farg. & Serv. Encycl. Méth. x. 498. 1.
St. Farg. Hym. iii. 283. 2.
Dahlb. Hym. Europ. i. 185. 3.

Stictia signata, *Illig. ed. Rossi, Faun. Etrus.* 2nd ed. *Erichs. Faun. und Flora Brit. Guiana,* iii. 589?

Hab. South America; Brazil.

2. Monedula Surinamensis. B.M.

Apis Surinamensis, *De Geer, Ins.* iii. 569. 1. t. 28. f. 1.
Bembex continua, *Fabr. Syst. Piez.* 225. 15.
Monedula continua, *Latr. Gen. Cr. et Ins.* iv. 100.
St. Farg. & Serv. Encycl. Méth. x. 498.
St. Farg. Hym. iii. 287. 5.
Monedula Surinamensis, *Dahlb. Hym. Europ.* i. 187. 6.

Hab. South America; Brazil; St. Domingo.

3. Monedula punctata. B.M.

Bembyx punctata, *Fabr. Syst. Ent.* p. 361. 2 ♀.
Bembex punctata, *Fabr. Ent. Syst.* ii. 248. 2; *Syst. Piez.* 223. 3.
Monedula punctata, *St. Farg. & Serv. Encycl. Méth.* x. 498.
St. Farg. Hym. iii. 284. 3.
Dahlb. Hym. Europ. i. 184. 1.
Bembex maculata, *Fabr. Syst. Piez.* 222. 2 ♂ (var.).
Stictia signata et maculata, *Erichs. Faun. und Fl. Brit. Guiana,* iii. 589.

Hab. S. America; Demerara; Brazil. (Coll. W. W. Saunders, Esq.)

Var. β. The yellow markings on the thorax twice as broad as in the majority of specimens; the central spots of the abdomen enlarged and united to the lateral ones; the legs more broadly striped with yellow.

4. Monedula spinosa. B.M.

Bembex spinosa, *Fabr. Ent. Syst. Supp.* 260. 9; *Syst. Piez.* 225. 14.
Monedula spinosa, *Dahlb. Hym. Europ.* i. 494.

Hab. South America.

5. Monedula fuscipennis. B.M.

Monedula fuscipennis, *St. Farg. Hym.* iii. 286. 4.
Monedula Zetterstedti, *Dahlb. Hym. Europ.* i. 493.

Hab. Brazil.

6. Monedula magnifica. B.M.

Monedula magnifica, *Perty, Del. An. Art.* p. 144. t. 28. f. 3.

Hab. Brazil.

7. Monedula similima. B.M.

Male. Length 7 lines.—Black: a pale testaceous line on each side of the face; a line at the base of the scape in front, and a transverse one at the base of the labrum, yellow. Thorax: a stripe on the post-scutellum, a curved line beneath, and the posterior angles of the metathorax, yellow; wings smoky-hyaline; the anterior and intermediate tibiæ in front, the first joint of the tarsi in front, yellow; the claw-joint of the anterior tarsi pale testaceous, the claws black; the apex of the posterior tibiæ on the outer side, and also the base of the first joint of the tarsi outside, yellow. Abdomen: the five basal segments have on each side a large subovate macula, pointed within; the sixth and seventh segments black, the margins of the apical segment not toothed; beneath black, the second segment having in the middle a minute acute tooth.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

This species in appearance resembles *M. heros*, from which it differs not only in the colouring of the head and legs, but in having the apical segment simple: in *M. heros* it is armed on each side with a stout acute tooth.

8. Monedula insularis.

Monedula insularis, *Dahlb. Hym. Europ.* i. 186. 4.

Hab. West Indies (St. Thomas).

9. Monedula dissecta. B.M.

Monedula dissecta, *Dahlb. Hym. Europ.* i. 186. 5.

Hab. Demerara.

10. Monedula Peruviana. B.M.

Bembex peruviana, *Guér. Icon. Règ. Anim.* iii. 437 ♂.
Monedula peruviana, *Guér. Icon. Règ. Anim.* ii. pl. 70. f. 6 ♂.
Monedula Orbignyi, *Guér. Icon. Règ. Anim.* iii. 437 ♀.
Bembex Chilensis, *Dahlb. Hym. Europ.* i. 184.

Hab. Peru; Chili.

11. Monedula Chilensis.

Monedula Chiliensis, *Spin. Gay's Chili*, vi. 314.

Hab. Chili.

12. Monedula angulata. B.M.

Female. Length 6 lines.—Head black; the face and cheeks with a silvery pubescence; a spot on the scape in front, the anterior margin of the clypeus, the labrum and mandibles, yellow; the tips of the mandibles black; the clypeus, sides of the face, orbits of the eyes, a minute spot in front of the anterior stemma, and the antennæ, reddish-yellow; four or five of the apical joints of the flagellum black. Thorax black; the posterior margin of the prothorax, two abbreviated lines on the mesothorax anteriorly, a line on each side passing over the tegulæ, a transverse interrupted line at the base of the scutellum, the post-scutellum, an arcuate line on the metathorax and the posterior angles, yellow; the metathorax emarginate its entire width, the lateral angles acute and slightly produced; the prothorax variegated with yellow beneath, the mesothorax with an irregular yellow stripe beneath the wings; the legs reddish-yellow, striped or spotted with yellow beneath; wings hyaline, sometimes faintly smoky. Abdomen yellow, with a large angular black spot at the base; the basal and apical margins of the segments have a narrow black band, two or three of the apical bands rufo-fuscous; beneath yellow, with a ferruginous stain in the middle.

Male.—This sex only differs in being brighter coloured, and in having a stout acute tooth, curved backwards, on the second abdominal segment beneath.

Hab. Brazil (Para; Santarem).

This species, although much smaller than *M. Surinamensis*, very strongly resembles it: the acute posterior angles of the metathorax in both sexes, and the tooth on the abdomen beneath, of the male, at once separate them.

13. Monedula sericea.

Monedula sericea, *Spin. Gay's Chili*, vi. 315. 2.

Hab. Chili.

14. Monedula Montezuma. B.M.

Female. Length 7–8 lines.—Head black; the clypeus, sides of the face, orbits of the eyes, an angulated line in front of the anterior stemma, the scape in front, labrum and mandibles, yellow; the latter black at their tips. Thorax black; the posterior margin of the prothorax, the tubercles, an irregular stripe beneath the wings, two abbreviated lines in the middle of the disk of the mesothorax, a central spot on its posterior margin, a spot on each side of the scutellum, the post-scutellum, and a curved line

on the metathorax, yellow; legs yellow, with a black spot on the trochanters and femora beneath; also a black stripe at the base of the femora above; wings subhyaline, the nervures ferruginous. Abdomen yellow, the margins of the segments ferruginous; the first segment has the base and a central pointed spot uniting with it, black, an oblique line on each side black; the second segment has a central saddle-shaped spot, and the following segments two central black dots; the apical segment has in addition a central elongate-acute angular spot.

The male closely resembles the female, but the spots on the abdomen are seldom united; the abdomen is yellow beneath, the second segment having a central longitudinal black stripe, and also a central minute acute tooth at its apical margin.

Hab. Mexico.

This is a species which varies in the markings of the abdomen; the black spots sometimes unite with the black basal margin of the segments; in some examples they are all separated, particularly in specimens of the males.

15. Monedula Carolina. B.M.

Bembex Carolina, *Fabr. Ent. Syst.* ii. 249. 7; *Syst. Piez.* 224. 11. *Coqueb. Illustr. Icon. Ins.* dec. 1. t. 6. f. 2 ♀.
Monedula Carolina, *Latr. Gen. Crust. et Ins.* iv. 100. *St. Farg. Hym.* iii. 281. 1. t. 28. f. 4. *Dahlb. Hym. Europ.* i. 185. 2.

Hab. North America; East Florida; Carolina.

16. Monedula 4-fasciata. B.M.

Monedula 4-fasciata, *Say, Narr. Exped. St. Peter's River, Append.* 70. 1.
Monedula Sallei, *Guér. Icon. Règ. Anim.* iii. 437?

Hab. Pennsylvania; N. Carolina.

17. Monedula ventralis.

Monedula ventralis, *Say, Narr. Exped. St. Peter's River, Append.* 70. 2.

Hab. Pennsylvania.

18. Monedula pictifrons. B.M.

Female. Length 6 lines.—Head black; the clypeus, face on each side, a triangular spot enclosing the anterior stemma, a central line uniting with it and running to the base of the cly-

peus, the outer orbit of the eyes, a narrow line on the posterior margin of the vertex, the antennæ, labrum and mandibles, yellow; tips of the mandibles black. Thorax black; the prothorax, two abbreviated central stripes on the mesothorax in front, a line passing over the tegulæ which unites with a line on the posterior margin of the scutellum, the post-scutellum, and a curved line on the metathorax, yellow; a large macula at the posterior angles of the metathorax, and a large irregular-shaped spot beneath the wings, yellow; the legs yellow, with a black stripe at the base of the femora above; wings hyaline, the nervures fuscous. Abdomen yellow; the basal margins of the segments black, each with a central bilobed black spot; beneath, the basal margins of the segments have a bilobed black fascia; the apical segment black, with a heart-shaped yellow spot at the apex.

Hab. North Carolina.

Fam. 6. NYSSONIDÆ.

Mandibles not emarginate beneath; the intermediate tibiæ with two spines at their apex. Abdomen resembling the *Larridæ*.

Genus 1. STIZUS.

Sphex, pt., *Drury, Exot. Ins.* ii. 71 (1773).
Vespa, pt., *Fabr. Ent. Syst.* ii. 254 (1793).
Stizus, *Latr. Gen. Crust. et Ins.* iv. 100 (1804).
Sphecius, *Dahlb. Hym. Europ.* i. 154 (1843).
Hogardia, *St. Farg. Hym.* iii. 288 (1845).

1. Stizus speciosus. B.M.

Sphex speciosus, *Drury, Exot. Ins.* ii. 71. t. 38. f. 1 ♀.
Vespa tricincta, *Fabr. Ent. Syst.* ii. 254. 5; *Syst. Piez.* 254. 5, *and Mus. Dom. Banks. Cab. Linn. Soc.*
Stizus speciosus, *St. Farg. & Serv. Enc. Méth.* x. 496. 1. t. 382. f. 6.
Sphecius speciosus, *Dahlb. Hym. Europ.* i. 154.
Hogardia speciosa, *St. Farg. Hym.* iii. 290. 2.

Hab. North America.

2. Stizus Hogardii. Pl. VIII. fig. 4. B.M.

Stizus Hogardii, *Latr. Gen. Crust. et Ins.* iv. 100. t. 13. f. 12 ♀.
St. Farg. & Serv. Encycl. Méth. x. 496.
Hogardia rufescens, *St. Farg. Hym.* iii. 289. 1. t. 28. f. 5.

Hab. St. Domingo; Jamaica.

3. Stizus nigricornis. B.M.

Stizus nigricornis, *Dufour, Ann. Soc. Ent. Fr.* vii. 271. 2. t. 9. f. 2 (1838).
Sphecius nigricornis, *Dahlb. Hym. Europ.* i. 480. 1.
Lucas, Explo. Sc. Algér. iii. 266.
Larra syriaca, *Klug, Symb. Phys.* dec. v. t. 46. f. 6.

Hab. Albania; South of France.

Specimens of this species from Albania differ from those received from the South of France in having the antennæ of the females more or less ferruginous; the specimens are also larger: in other respects they agree with French examples.

4. Stizus pectoralis. B.M.

Female. Length 12 lines.—Ferruginous: the face covered with silvery-white pubescence, which is short and very dense on each side of the clypeus; the apical half of the mandibles black. Thorax black beneath; the metathorax black, as well as the coxæ and femora, the latter ferruginous at their apex; the disk of the thorax has a short ferruginous pubescence; the wings hyaline, yellowish towards their base. Abdomen entirely ferruginous, shining and finely punctured; the apical segment strongly punctured above.

Hab. Australia.

Genus 2. LARRA.

Sphex, pt., *Fabr. Syst. Ent.* p. 348 (1775).
Crabro, pt., *Fabr. Syst. Ent.* p. 373 (1775).
Tiphia, pt., *Fabr. Mant.* i. 278 (1787).
Vespa, pt., *Vill. Ent.* iii. 278 (1789).
Bembex, pt., *Fabr. Ent. Syst.* ii. 251 (1793).
Mellinus, pt., *Panz. Faun. Germ.* 73. 19 (1795).
Scolia, pt., *Fabr. Syst. Piez.* p. 242 (1804).
Larra, *Klug, Symb. Phys.* dec. v. (1829).
Bicyrtes, *St. Farg. Hym.* iii. 53 (1845).

The insects included in this genus have been usually placed in that of *Stizus*; but the type of the latter is the *Stizus Hogardii* of Latreille, generically distinct from the insects of the present genus, the type of which is the *Larra vespiformis*.

1. Larra abdominalis.

Stizus abdominalis, *Dahlb. Hym. Europ.* i. 478.

Hab. Egypt.

2. Larra Ægyptia.

Stizus ægyptius, *St. Farg. Hym.* iii. 300. 9.

Hab. Egypt.

3. Larra Caffer. B.M.

Stizus caffer, *Sauss. Mém. Soc. Phys. Genève*, xiv. 28. 15. t. f. 9.

Female. Length 6½ lines.—The head, thorax and legs ferruginous; the disk of the mesothorax and the metathorax black; the lateral margins broadly ferruginous; the margins crenulated, the breast fuscous; the wings slightly fuscous, the nervures ferruginous. Abdomen shining, finely and closely punctured, and having a violet iridescence; the four basal segments having on each side a large yellow macula, the fifth and sixth segments ferruginous; beneath, ferruginous.

Hab. Port Natal.

This species closely resembles *L. fuscipennis*, but it differs in not having the basal joints of the flagellum slender.

4. Larra amœna.

Female. Length 5–6 lines.—Black: the mandibles, clypeus, scape, and five basal joints of the flagellum, ferruginous; the following joints fuscous; the extreme apex ferruginous. Thorax strongly and very closely punctured; the tegulæ and legs ferruginous; the coxæ and trochanters black; the wings reddish-brown, their base hyaline. Abdomen smooth, shining, and very delicately and closely punctured; the basal segment ferruginous, its extreme base, as well as its apical margin, black; the three apical segments pale ferruginous; the apical margins of the second and third segments obscurely rufo-testaceous; beneath, the basal segment has a central longitudinal carina; the three apical segments pale ferruginous.

Hab. West Africa. (Coll. F. Smith.)

5. Larra annulata.

Larra annulata, *Klug, Symb. Phys.* dec. v. t. 46. f. 7 ♂.

Hab. Syria.

6. Larra antennata.

Larra antennata, *Klug, Symb. Phys.* dec. v. t. 46. f. 5 ♂.

Hab. Syria.

7. Larra apicalis.

Stizus apicalis, *Guér. Icon. Règ. Anim.* iii. 437 ♀.

Male. Length 9 lines.—Ferruginous: the scape in front, the apical joint of the flagellum, the labrum, clypeus, the face above as high as the insertion of the antennæ, the sides, and two spots before the posterior stemmata, yellow; the mesothorax fuscous; the post-scutellum and a curved line on the metathorax yellow; the wings and abdomen as in the other sex.

Hab. Senegal. (Coll. F. Smith.)

8. Larra argentifrons. B.M.

Male. Length 4½ lines.—Black: the palpi, labrum, clypeus, and antennæ beneath, yellow; the face densely covered with silvery pubescence; the apical joint of the antennæ terminating in a sharp hook or spine; the eleventh joint has also a bent spine at the apex within; the fourth joint has also a short tooth beneath. Thorax: the tubercles, tegulæ and an epaulet over them, a stripe at the sides of the scutellum, a transverse line on the post-scutellum and the legs, yellow; the coxæ, except their tips, the trochanters, and the femora more or less at their base, black; the wings hyaline and iridescent, the nervures testaceous. Abdomen: the apical margins of the segments with a bisinuated yellow band; beneath, the second and three following segments have on each side an angular yellow macula.

Hab. Port Natal.

This species very closely resembles *Larra tridens* of Fabricius, of which, indeed, it may possibly be an extreme variety.

9. Larra atrox. B.M.

Female. Length 11 lines.—Black: the labrum, clypeus, and a spot above, the sides of the face and outer orbit of the eyes, yellow; the flagellum ferruginous; the posterior margin of the prothorax, an epaulet over the tegulæ, and the posterior margin of the latter, ferruginous; the anterior and intermediate tibiæ and tarsi ferruginous; the tips of the femora and the apex of the tibiæ within, ferruginous; the wings dark fuscous, with a violet iridescence. Abdomen shining and very delicately punctured; at the extreme apex a little fulvous pubescence.

Hab. South Africa.

10. Larra basalis.

Stizus basalis, *Guér. Icon. Règn. Anim.* iii. 438.

Hab. Senegal.

11. Larra bipunctata. B.M.

Female. Length 7 lines.—Black: the mandibles, labrum, clypeus and a spot above, the face on each side nearly as high as the anterior stemma, the scape in front, and the outer orbit of the eyes, pale yellow; the flagellum fulvous; a black spot at the base of the clypeus, and the tips of the mandibles black; the head covered with a thin white pubescence. Thorax: the posterior margin of the prothorax, the tubercles, an epaulet over the tegulæ, two large ovate spots on the scutellum, and a curved stripe on the metathorax, pale yellow; the wings hyaline, their nervures ferruginous; the legs reddish-yellow, the coxæ and trochanters black. Abdomen: the basal segment has a pale yellow band, which is notched or slightly interrupted in the middle; the second and three following segments have a broad waved band, slightly interrupted in the middle; beneath, the second and following segments have on each side an angular yellow macula.

The males have all the bands interrupted, and have the metathorax immaculate.

Hab. Albania (Yanina).

12. Larra bizonata. B.M.

Stizus bizonatus, *Spin. Ann. Soc. Ent. Fr.* vii. 473. 24 (1838) ♂ ♀; fig. *Expéd. Egypt.* t. 16. f. 13 ♀.

Guér. Icon. Règn. Anim. iii. 439.

Klug, Symb. Phys. dec. v. t. 46. f. 10 (*sphegiformis*).

St. Farg. Hym. iii. 302. 11.

Hab. Egypt.

13. Larra blandina. B.M.

Female. Length 9 lines.—Black: closely punctured; the tibiæ and tarsi have a fine short silvery pile; the wings dark brown, with a violet iridescence; the tips of the anterior wings and the base of the posterior pair milky-white. The abdomen red, with the base black.

Male rather smaller, but closely resembling the female; the face densely clothed with bright silvery pile; the metathorax covered with silvery-white pubescence; the base of the abdomen has a little white pubescence; that on the rest of the abdomen is short and bright fulvous.

Hab. India.

14. Larra cingulata.

Female. Length 4 lines.—Black: the scape in front, the

inner orbit of the eyes as high as the anterior stemma, the sides of the clypeus and labrum, as well as the palpi, yellow; the flagellum pale testaceous beneath. Thorax: the posterior margin of the prothorax, a minute spot at the posterior angles of the mesothorax and the post-scutellum, yellow; the metathorax emarginate its entire width, the posterior angles produced, forming acute teeth, which are yellow; the wings hyaline, the nervures black; the anterior tibiæ and tarsi yellow in front, the claw-joint entirely so. The apical margins of all the segments of the abdomen have a narrow yellow fascia, which is continued beneath; the apical segment has an angular spot on each side above.

Hab. Brazil. (Coll. W. W. Saunders, Esq.)

15. Larra cinguligera. B.M.

Female. Length 5½ lines.—Black: the scape in front and the clypeus yellow, the latter covered with bright silvery pile; the flagellum beneath, except two or three of the basal joints, fulvous. Thorax: the posterior margin of the prothorax and the tubercles yellowish-white; the tegulæ and legs ferruginous; the coxæ and anterior femora beneath fuscous; the wings hyaline, the nervures fuscous. Abdomen: the first and three following segments have towards their apical margins an uninterrupted yellowish-white band; the apical margins of the segments, beneath, have a yellowish-white bisinuated fascia.

Hab. Interior of South Africa.

16. Larra citrina.

Larra citrina, *Klug, Symb. Phys.* dec. v. t. 46. f. 4 ♀.

Hab. Egypt.

17. Larra combusta. B.M.

Female. Length 8–9 lines.—Head black; a narrow line at the outer orbit of the eyes, the face below the anterior stemma, the clypeus, mandibles and antennæ, ferruginous; the tips of the mandibles black; the apical joints of the flagellum fuscous above. Thorax black; the prothorax, sides of the mesothorax, the scutellum, the tegulæ and legs, ferruginous; the posterior legs more or less fuscous; wings dark brown, with a violet iridescence. Abdomen fusco-ferruginous, shining, and closely and finely punctured; beneath, clear red at the base.

Hab. Asia Minor (Trebizond).

18. Larra conica.

Stizus conicus, *Germar, Reise nach Dalm.* p. 262. 358.
Van d. Lind, Obs. ii. 16. 3.
Dahlb. Hym. Europ. i. 152. 87.

Hab. Dalmatia (Spalatro).

19. Larra Delessertii.

Stizus Delessertii, *Guér. Icon. Règ. Anim.* iii. 439.

Hab. India (Pondicherry).

20. Larra dichroa.

Larra dichroa, *Klug, Symb. Phys.* dec. v. t. 46. f. 9 ♂.

Hab. Egypt.

21. Larra elegans.

Stizus elegans, *Dahlb. Hym. Europ.* i. 478.

Hab. Egypt.

22. Larra fasciata. B.M.

Larra fasciata, *Fabr. Ent. Syst. Supp.* 253. 7–8; *Syst. Piez.* 221. 13.
Klug, Symb. Phys. dec. v. t. 46. f. 14?
Stizus fasciatus, *Dahlb. Hym. Europ.* i. 153.

Hab. Tranquebar; Northern India; Ethiopia (Ambukohl).

23. Larra fenestrata. B.M.

Male. Length 8 lines.—Black: the face covered with short cinereous pubescence; a slightly raised carina passes from the base of the clypeus between the antennæ, not extending to the anterior stemma. The metathorax covered with cinereous pubescence; the wings black, hyaline at their base, and the extreme apex of the superior pair hyaline. Abdomen shining, finely punctured, and covered with a cinereous pilosity.

Hab. Congo.

24. Larra ferruginea.

Male. Length 8 lines.—Ferruginous: the clypeus, labrum, mandibles, scape in front, and outer orbit of the eyes, yellow. The posterior margin of the prothorax and the tubercles yellow; the mesothorax and a transverse stripe beneath the post-scutellum black; the wings fulvo-hyaline, the nervures ferruginous; a dark fuscous cloud occupies the marginal cell. Abdomen: the

third segment has on each side an arcuate yellow stripe; the fourth and fifth segments have an interrupted yellow fascia; the sixth an entire yellow fascia; beneath, the third and three following segments have their apical margins yellow. The head and thorax have a thin cinereous pubescence; the abdomen has a short yellow pubescence.

Hab. The Gambia. (Coll. F. Smith.)

25. Larra flavipes.

Female. Length 4½ lines.—Black: the antennæ in front, the clypeus, labrum and mandibles, yellow. Thorax: the anterior and posterior margins of the prothorax, the tubercles, a spot beneath the wings, the tegulæ and an epaulet over them, a spot on each side of the scutellum, the post-scutellum, the lateral posterior angles of the metathorax, and the legs, yellow; the metathorax truncated and hollowed out behind; the wings hyaline, their nervures ferruginous. Abdomen: the basal segment has on each side a large angular yellow spot, the two uniting in the middle of the segment; the four following segments have a bisinuated fascia on their apical margins; the sixth segment ferruginous at its apex.

Hab. The Gambia. (Coll. F. Smith.)

26. Larra dubia.

Male. Length 4 lines.—Black: the clypeus and an angular spot above, the labrum, palpi, a spot on the mandibles and the antennæ beneath, yellow; the clypeus covered with silvery pubescence. Thorax: the posterior margin of the prothorax, the tubercles, a spot beneath the wings, the tegulæ and an epaulet over them, a spot on each side of the scutellum, the post-scutellum, and the lateral margins of the metathorax, yellow; the angles of the latter acute; the anterior and intermediate legs yellow, with a black stripe on the femora and tibiæ behind; the tarsi have a dark stain behind; the posterior legs black, a yellow stripe on the femora above at their base; the knees, and a stripe on the tibiæ at their apex beneath, yellow; the coxæ and trochanters black; wings subhyaline, the second submarginal cell *petiolated*. Abdomen: the basal segment with a broad yellow band on its apical margin sinuated in the middle; the other segments have a bisinuated fascia, the two apical segments yellow; beneath, the second and following segments with a narrow yellow fascia on their apical margins; the abdomen is thinly covered with short pale pubescence.

Hab. Brazil (Villa Nova).

This species, having the second submarginal cell petiolated, would, by a rigorous adherence to the wing-system, be excluded from the genus *Larra*; but an examination of a large number shows that in all the smaller species the second submarginal cell has a tendency to become narrowed towards the marginal: in *L. tridentata* the nervures frequently unite at their junction with the marginal cell, and are sometimes even distinctly petiolated; under these circumstances the present species is retained in the genus.

27. Larra fuliginosa. B.M.

Larra fuliginosa, *Klug, Symb. Phys.* dec. v. t. 46. f. 11 ♂.

Hab. Egypt; Gambia.

28. Larra fuscipennis. B.M.

Female. Length 7–9 lines.—Black: the head ferruginous, with a fuscous stain above the insertion of each antenna, the stain sometimes nearly obsolete; the labrum, mandibles and clypeus usually more or less yellow; the antennæ ferruginous; the flagellum very slender at the base. The prothorax, tubercles, sides of the mesothorax, tegulæ, scutellum and legs, ferruginous; in some examples, a large ferruginous spot beneath the wings; the head and thorax have a thin griseous pubescence, most dense on the metathorax; the wings fuscous, their apical margins pale, the nervures ferruginous. Abdomen delicately punctured, shining, and having a violet iridescence, thinly covered with cinereous pubescence, which is most dense on the basal segment; the second and third segments have on each side a large yellow macula; the two apical segments ferruginous; beneath, the two basal and apical segments ferruginous.

Male.—This sex only differs in having the apex of the abdomen less red.

Hab. Port Natal.

29. Larra grandis. B.M.

Stizus grandis, *St. Farg. Hym.* iii. 293. 2.
Lucas, Explo. Sc. Algér. iii. 263. t. 13. f. 8.

Hab. Algeria.

30. Larra hirtula. B.M.

Male. Length 3½ lines.—Black: the labrum, clypeus, and scape in front, white; a black spot in the centre of the clypeus; the flagellum fulvous beneath. Thorax: the posterior margin

of the prothorax, the tubercles, tegulæ and legs, ferruginous; the coxæ, trochanters and femora at their base black; the wings hyaline, their nervures black; the metathorax truncated. Abdomen: the basal segment has a transverse yellow fascia towards its apical margin, the edge of the fascia bordered with ferruginous; the third segment has a ferruginous band on its apical margin; the margins of the other segments have a yellow fascia more or less suffused with ferruginous colouring; the insect covered with suberect cinereous pubescence.

Hab. Adelaide.

31. Larra infuscata.

Larra infuscata, *Klug, Symb. Phys.* dec. v. t. 46. f. 11 ♂.

Hab. Ethiopia (Ambukohl).

32. Larra integer. B.M.

Bembex integer, *Fabr. Ent. Syst.* ii. 251. 12; *Syst. Piez.* 226. 18.
Stizus integer, *Spin. Ins. Lig.* i. 74. 1.
Van d. Lind, Obs. ii. 15. 2.
Dahlb. Hym. Europ. i. 152. 86.

Hab. France; Italy; Germany; Spain; Albania.

33. Larra Klugii.

Larra apicalis, *Klug, Symb. Phys.* dec. v. t. 46. f. 13 ♂ (nec. *Guér.*).

Hab. Egypt.

34. Larra lepida.

Larra lepida, *Klug, Symb. Phys.* dec. v. t. 46. f. 1 ♂.

Hab. Egypt.

35. Larra loriculata.

Male. Length 7–8 lines.—Black: the scape in front, the face below the insertion of the antennæ, a narrow transverse line in front of the stemmata, and another running down the face to the base of the clypeus, the latter, and also the labrum, yellow; the outer orbit of the eyes reddish-yellow; the mandibles and antennæ ferruginous. Thorax: the posterior margin of the prothorax and tubercles, as well as the post-scutellum, yellow; a large macula on each side of the scutellum; the lateral posterior angles of the metathorax and the legs fulvous; the coxæ and trochanters black; the metathorax truncate, the margins of the truncation denticulate, the teeth ferruginous; the wings fulvo-hyaline, the

nervures ferruginous. Abdomen: each segment has a large bell-shaped macula in the centre, on each side of which is a large oblong macula, giving the abdomen the appearance of a coat of mail; beneath, the apical margins of the segments fulvous.

Hab. The Gambia. (Coll. F. Smith.)

36. Larra melanoptera.

Stizus melanopterus, *Dahlb. Hym. Europ.* i. 478.

Hab. Rhodes.

37. Larra melanoxantha.

Male. Length 6 lines.—Yellow: the flagellum fulvous; the vertex black; the apical joints of the antennæ fuscous above; the tips of the mandibles rufo-piceous. The mesothorax, the post-scutellum, and two oblique lines on the metathorax uniting at its apex, black; the wings hyaline, the marginal cell occupied by a fuscous cloud. The extreme base of the abdomen black, the black colouring produced in the middle into an angular spot which extends down half the length of the segment; the apical margins of the first and three following segments black, and an angular black spot in the middle of their base; the apical segment ferruginous.

Hab. India. (Coll. W. W. Saunders, Esq.)

38. Larra mellea.

Female. Length 5 lines.—Honey-yellow: the flagellum and vertex pale ferruginous; three longitudinal ferruginous stripes on the mesothorax, and the margins of the scutellum and post-scutellum ferruginous; the legs in some individuals with ferruginous stains; the wings fulvo-hyaline, a fuscous cloud occupying the marginal cell, the nervures ferruginous; the basal and apical margins of the segments of the abdomen narrowly ferruginous.

Hab. India. (Coll. W. W. Saunders, Esq.)

39. Larra Mionii.

Stizus Mionii, *Guér. Icon. Règ. Anim.* iii. 438.

Hab. Senegal.

40. Larra moneduloides. B.M.

Female. Length 3 lines.—Black: the margins of the clypeus, the labrum, palpi, and antennæ beneath, pale yellow; the fla-

gellum somewhat fulvous beneath; the face has a short silvery pubescence. Thorax: the posterior margin of the prothorax, the tubercles, a spot on the tegulæ in front, another at the posterior lateral angles of the mesothorax, a stripe on each side of the scutellum, the post-scutellum, and the lateral angles of the metathorax, yellow; the anterior and intermediate tibiæ in front and the tarsi yellow; the latter have a ferruginous tinge above; the posterior tibiæ have a yellow stripe at their base above, the tarsi rufo-fuscous; the wings subhyaline, their nervures fuscous. Abdomen: all the segments have a bisinuated marginal fascia.

Male.—This sex has the labrum, mandibles, palpi, clypeus, inner orbit of the eyes, the scape in front and the base of the flagellum, yellow; the tibiæ and tarsi are also yellow; the bands on the abdomen are broader; the three basal segments have a cinereous pubescence, that on the following is black.

Hab. St. John's Bluff, East Florida.

41. Larra nubilipennis. B.M.

Female. Length 7 lines.—Honey-yellow: the flagellum fulvous; the vertex with a transverse black line and a spot before the anterior stemma. The thorax reddish-yellow, with three black stripes; the breast has a large black patch which runs up the sides to the insertion of the wings; a transverse stripe on the metathorax at its base, and one or two oblique stripes on the truncated portion; the stripes vary in length in different individuals. Abdomen ferruginous at the base, the apical margins of the two basal segments fuscous; sometimes the margins of all the segments are ferruginous; beneath, the two basal segments yellow, the apical segments ferruginous.

Hab. India.

42. Larra ornata. B.M.

Stizus ornatus, *St. Farg. Hym.* iii. 294. 3.
Dahlb. Hym. Europ. i. 477.
Lucas, Explo. Sc. Algér. iii. 264. t. 13. f. 9.

Hab. Algeria (Oran).

43. Larra peregrina.

Male. Length 5 lines.—Black: the antennæ beneath, the clypeus, labrum, mandibles and palpi, yellow; the apical joint of the antennæ produced into a sharp spine, the eleventh joint has a sharp spine beneath. Thorax: the posterior margin of the prothorax, the tubercles, tegulæ and an epaulet over them, a spot

on each side of the scutellum and the post-scutellum, yellow; the wings hyaline, the nervures ferruginous; the legs yellow, with the coxæ, except their tips, the anterior and intermediate femora above, black; the posterior femora black, with their apex yellow, and a black spot on the anterior tibiæ beneath. Abdomen: a broad yellow band on the apical margins of all the segments; the first band slightly narrowed in the middle, the three following with two square notches on their anterior margin; beneath black; the second segment with a large stout bent tooth in the middle; the sixth segment has an obtuse tubercle in the middle.

Hab. Albania (Privesa).

Having only seen a single specimen of this species, it has not been thought advisable to remove it from the genus *Larra*, from which, however, it differs not only in having the venter armed with a tooth, as in the genus *Monedula*, but in having also a difference in the neuration of the wings; the marginal cell does not extend beyond the third recurrent nervure, and at the apex is abruptly truncated.

44. Larra Perrisi.

Stizus Perrisi, *Dufour*, *Ann. Soc. Ent. Fr.* vii. 269. t. 9. f. 1.
St. Farg. Hym. iii. 295. 4.

Hab. France.

45. Larra picta.

Stizus pictus, *Dahlb. Hym. Europ.* i. 478.

Hab. Egypt.

46. Larra pulcherrima. B.M.

Female. Length 9 lines.—Black: the labrum, clypeus, inner orbit of the eyes as high as the anterior stemma, and a narrow line at the outer orbit, pale yellow; a yellow spot on the scape in front; the apical joint of the antennæ and the tips of the other joints beneath fulvous. Thorax: the posterior margin of the prothorax and also that of the scutellum, the post-scutellum and the tubercles, pale yellow; the legs ferruginous, with the coxæ and trochanters black; the tegulæ and an epaulet over them reddish-yellow; the wings fulvo-hyaline, the nervures ferruginous. Abdomen: an oblong macula on each side of the basal segment in the middle, another on the second segment rather longer and pointed within, a bisinuated waved fascia slightly interrupted in the middle, on the third, a bisinuated entire fascia at the base of the fourth segment, and a spot in the middle of

the fourth at its base, of a pale yellow; beneath, the second and third segments have on each side a minute yellow spot.

Hab. Shanghai. (Coll. R. Fortune, Esq.)

47. Larra reversa. B.M.

Female. Length 2½ lines.—Black: the clypeus and a spot above, the scape in front, the anterior margin of the labrum and the palpi, yellow. Thorax: the posterior margin of the prothorax, the tubercles, a spot on the tegulæ, another behind them, a spot on each side of the scutellum, another on the postscutellum, and the lateral margins of the metathorax, yellow; the latter hollowed out behind; the anterior femora beneath, a stripe on the intermediate femora beneath at their apex, the anterior and intermediate tibiæ and tarsi in front, yellow; the posterior tibiæ have a yellow stripe at their base above; the wings hyaline, their nervures testaceous. Abdomen: an interrupted yellow band on the basal segment, an entire one on the apical margin of the second, widest laterally, a spot in the middle of the margin of the third, a narrow band on the fourth, and a spot on each side of the fourth; the insect covered with a scattered hoary pubescence.

The male closely resembles the female, but differs in having the clypeus black, and in having five entire yellow bands on the abdomen, the first broad and situated in the middle of its anterior margin.

Hab. Sumatra.

This species closely resembles the *Larra tridentata*, but is quite distinct, the colouring of the face of the sexes being the reverse of the European species; the abdomen is very delicately punctured, whereas it is rather strongly impressed in *L. tridentata*.

48. Larra rufescens. B.M.

Female. Length 10 lines.—Rufo-fulvous: the face, clypeus, labrum, antennæ in front, and the cheeks, reddish-yellow; the mesothorax, the posterior margin of the scutellum, the postscutellum, and an arched stripe on the metathorax, yellow; the legs dashed with yellow; the wings yellow-hyaline, a fuscous cloud occupying the marginal and the second and third submarginal cells; the nervures ferruginous; the abdomen has an ovate-yellow macula on each side of the three basal segments, that on the first segment minute.

Var. *a*. The apical margins of the three basal segments fuscous, or black.

Hab. India (Punjaub).

49. Larra rufipes.

Bembex rufipes, *Oliv. Encycl. Méth.* iv. 292. 12.
Van d. Lind, Obs. ii. 17. 5.
St. Farg. Hym. iii. 299. 8.
Lucas, Explo. Sc. Algér. iii. 265.

Hab. France; Algeria. (Coll. F. Smith.)

50. Larra ruficornis. B.M.

Bembex ruficornis, *Fabr. Mant. Ins.* i. 286. 9; *Ent. Syst.* ii. 252. 16.
Oliv. Encycl. Méth. iv. 291. 4.
Vespa ruficornis, *Vill. Ent.* iii. 278. 31.
Gmelin, Syst. Nat. p. 2769. 159.
Stizus ruficornis, *Latr. Hist. Nat.* xiii. 303. 2.
Spin. Ins. Lig. i. 74. 2.
Van. d. Lind, Obs. ii. 14. 1.
Dahlb. Hym. Europ. i. 151. 85.
St. Farg. Hym. iii. 291. 1.
Lucas, Explo. Sc. Algér. iii. 264.

Hab. France; Germany; Italy; Spain; Albania.

51. Larra rufocincta.

Stizus rufocinctus, *Dahlb. Hym. Europ.* i. 478.

Hab. Egypt.

52. Larra Servillii. B.M.

Bicyrtes Servillii, *St. Farg. Hym.* iii. 53. 1.

Hab. North America.

An examination of a large number of species of this genus shows the necessity for considerable latitude being given for variation in the neuration of the anterior wings: a slight deviation from the type, *L. vespiformis*, cannot be regarded as of generic value; and the truncation or hollowing out of the metathorax is common to several species; to this division belong the species *L. fuscipennis*, *affinis*, *loriculata*, *fenestrata*, *argentifrons*, and *tridentata*. A slight difference in the neuration, and the truncation of the metathorax, are the only differences which constitute the genus *Bicyrtes* of St. Fargeau.

53. Larra succinea.

Larra succinea, *Klug, Symb. Phys.* dec. vi. t. 46. f. 3 ♂ ♀.

Hab. Egypt.

54. Larra tenella.

Larra tenella, *Klug, Symb. Phys.* dec. v. t. 46. f. 8 ♂.

Hab. Egypt.

55. Larra tenuicornis.

Male. Length 7 lines.—Black: the face below the insertion of the antennæ, and a narrow line at the inner orbits of the eyes, not running upwards so high as the anterior stemma, the scape in front, the clypeus, labrum and outer orbit of the eyes, yellow; a narrow black line runs from the antennæ to the base of the clypeus, which has a black spot; the mandibles and antennæ fulvous; the first joint of the flagellum very slender, its apex as well as that of the two following produced beneath. Thorax: the prothorax, the mesothorax on each side, the tubercles, tegulæ, scutellum and legs, ferruginous; the tibiæ have a yellow stain above; the wings fusco-ferruginous, the nervures ferruginous. Abdomen: the basal segment has a yellow macula on each side, the three following a broad interrupted band; the fifth and sixth segments yellow, with a central longitudinal ferruginous line; the apical segment ferruginous; beneath, the two basal segments have a large ferruginous macula.

Hab. The Gambia. (Coll. F. Smith.)

56. Larra tridentata. B.M.

Crabro tridentatus, *Fabr. Syst. Ent.* 373. 1; *Mant.* i. 294. 1 ♂.
Vespa tridentata, *Vill. Ent.* iii. 279. 27.
Gmelin, Syst. Nat. p. 2761. 98.
Bembex tridentata, *Fabr. Ent. Syst.* ii. 251. 14.
Scolia tridentata, *Fabr. Syst. Piez.* 242. 22.
Larra bifasciata, *Fabr. Ent. Syst. Supp.* p. 252. 5 ♀; *Syst. Piez.* 220. 6.
Stizus bifasciatus, *Jurine, Hym.* p. 176. t. 14 ♂.
Latr. Gen. Crust. et Ins. iv. 101.
Van d. Lind, Obs. ii. 16. 4 ♂ ♀.
Dahlb. Hym. Europ. i. 152. 88.
St. Farg. Hym. iii. 298. 7.
Lucas, Explo. Sc. Algér. iii. 266.

Hab. France; Algeria.

57. Larra tridens.

Vespa tridens, *Fabr. Spec. Ins.* i. 464. 33 ♂; *Mant.* i. 289. 38.
Vill. Ent. iii. 275. 22.

Vespa tridens, *Gmelin*, p. 2751. 42.
Oliv. Encycl. Méth. vi. 686. 83.
Crabro tridens, *Fabr. Ent. Syst.* ii. 298. 18; *Syst. Piez.* p.313. 23.
Crabro cinctus, *Rossi, Faun. Etrus.* ii. 890 ♂.
Mellinus repandus, *Panz. Faun. Germ.* 73. 19 ♀.
Stizus sinuatus, *Latr. Hist. Nat.* xiii. 303. 3.
Spin. Ins. Lig. i. 74. 3.
Larra tridens, *Illig. ed. Faun. Etrus.* ii. 890.
Stizus repandus, *Jurine, Hym.* p. 178.
Stizus tridens, *Van d. Lind, Obs.* ii. 17. 6 ♂ ♀.
Dahlb. Hym. Europ. i. 153. 89.
St. Farg. Hym. iii. 301. 10.
Lucas, Explo. Sc. Algér. iii. 266.

Hab. Italy; France; Germany; Albania; Algeria.

58. Larra vespiformis. B.M.

Sphex vespiformis, *Fabr. Spec. Ins.* i. 447. 23.
Tiphia vespiformis, *Fabr. Mant. Ins.* i. 178. 1.
Larra vespiformis, *Fabr. Ent. Syst.* ii. 220. 1; *Syst. Piez.* 219. 1.
Stizus vespiformis, *Dahlb. Hym. Europ.* i. 154.
St. Farg. Hym. iii. 297. 6.

Hab. India (Madras; Punjaub; Northern India).

59. Larra zonata.

Larra zonata, *Klug, Symb. Phys.* dec. v. t. 46. f. 2 ♀.

Hab. Arabia Felix.

Genus 3. EXEIRUS.

Exeirus, *Shuck. Trans. Ent. Soc. Lond.* ii. 71 (1836).

1. Exeirus lateritius. B.M.

Exeirus lateritius, *Shuck. Trans. Ent. Soc. Lond.* ii. 72. t. 8. f. 2.

Hab. Sydney; New South Wales; Tasmania.

Genus 4. NYSSON.

Crabro, pt., *Fabr. Syst. Ent.* 373 (1775).
Sphex, pt., *Fabr. Ent. Syst.* ii. 215 (1793).
Pompilus, pt., *Fabr. Ent. Syst. Supp.* 251 (1798).
Mellinus, pt., *Fabr. Ent. Syst. Supp.* 266 (1798).
Nysson, *Latr. Hist. Nat.* xiii. 305 (1804).
Oxybelus, pt., *Fabr. Syst. Piez.* 316 (1804).

1. Nysson spinosus. B.M.

Crabro spinosus, *Fabr. Syst. Ent.* 373. 2; *Ent. Syst.* ii. 293. 1; *Syst. Piez.* 307. 1.
Rossi, Faun. Etrus. Mant. i. 139. 308.
Panz. Faun. Germ. 62. 15 ♂.
Mellinus interruptus, *Panz. Faun. Germ.* 72. 13 ♀.
Nysson spinosus, *Latr. Hist. Nat.* xiii. 305; *Gen. Crust. et Ins.* iv. 91.
Oliv. Encycl. Méth. viii. 408.
Van d. Lind, Obs. ii. 30. 1.
Shuck. Foss. Hym. 100. 1.
Dahlb. Hym. Europ. 169. 100 & 484. 1.
Wesm. Hym. Foss. Belg. 74. 1.
Sphex spinosa, *Villers, Ent.* iii. 246. 71.
Nysson geniculatus, *St. Farg. Hym.* iii. 47. 3 ♂.

Hab. Britain; France; Italy; Germany; Belgium; Norway.

2. Nysson interruptus. B.M.

Mellinus interruptus, *Fabr. Ent. Syst. Supp.* 266. 4. 5.
Oxybelus interruptus, *Fabr. Syst. Piez.* 316. 1.
Mellinus dissectus, *Panz. Faun. Germ.* 77. 18.? ♀.
Nysson maculatus, *Van d. Lind, Obs.* ii. 31. 4?
Dahlb. Hym. Europ. i. 170. 103?
Nysson omissus, *Dahlb. Hym. Europ.* i. 485. 3.
Nysson interruptus, *Shuck. Foss. Hym.* 101. 2.
St. Farg. Hym. Europ. iii. 45. 1.
Wesm. Hym. Foss. Belg. 80. 5.
Nysson Panzeri, *St. Farg. Hym.* iii. 52. 8.
Nysson Shuckardi, *Wesm. Hym. Foss. Belg.* 75. 2.

Hab. Britain; France; Germany; Belgium; Sweden; Scandinavia.

3. Nysson maculatus. B.M.

Sphex maculata, *Fabr. Ent. Syst.* ii. 215. 70.
Pompilus maculatus, *Fabr. Ent. Syst. Supp.* 251. 32; *Syst. Piez.* 196. 42.
Crabro trimaculatus, *Panz. Faun. Germ.* 78. 18 ♀, 51. 13 ♂.
Nysson interruptus, *Latr. Hist. Nat.* xiii. 306. 3.
Nysson maculatus, *Van d. Lind, Obs.* ii. 31. 4.
Dahlb. Hym. Europ. i. 170. 103.
Wesm. Hym. Foss. Belg. 78. 4.

Hab. Germany; Brussels; France?

4. Nysson trimaculatus. B.M.

Crabro trimaculatus, *Rossi, Faun. Etrus.* ii. 95. 892 ♂.
Nysson nigripes, *Spin. Ins. Lig.* ii. 45. 38.
St. Farg. Hym. iii. 46. 2.
Nysson interruptus, *Oliv. Encycl. Méth.* viii. 408. 2.
Nysson trimaculatus, *Van d. Lind, Obs.* ii. 30. 2 ♂ ♀.
Shuck. Foss. Hym. 102. 3.
Dahlb. Hym. Europ. i. 169. 101.
Wesm. Hym. Foss. Belg. 77. 3.

Hab. Britain; Italy; France; Germany; Belgium; Sweden; Lapland; Finland.

5. Nysson dimidiatus. B.M.

Nysson dimidiatus, *Jurine, Hym.* 199. t. 10. gen. 22.
Van d. Lind, Obs. ii. 33. 6.
Shuck, Foss. Hym. 104. 5.
Dahlb. Hym. Europ. i. 171. 105.
St. Farg. Hym. iii. 49. 5.
Wesm. Hym. Foss. Belg. 82. 6.
Nysson Wesmaeli, *St. Farg. Hym.* iii. 50. 6.
Nysson quadriguttatus, *Spin. Ins. Lig.* ii. 43?

Hab. Britain; France; Germany; Belgium.

6. Nysson guttatus. B.M.

Nysson guttatus, *Oliv. Encycl. Méth.* viii. 409. 7.
Shuck. Foss. Hym. 103. 4.

Hab. Britain; France; Albania.

This is probably a highly-coloured variety of the *N. maculatus*; a still more highly-coloured example of that species is in the collection of the British Museum, from Albania; both being, in all probability, varieties of *N. dimidiatus*.

7. Nysson scalaris. B.M.

Nysson scalaris, *Illig. ed. Faun. Etrus.* ii. 157.
Nysson Dufourii, *St. Farg. Hym.* iii. 51. 7.
Nysson Dufouri, *Dahlb. Hym. Europ.* 485. 8.

Hab. France.

8. Nysson epeoliformis. B.M.

Female. Length 5½ lines.—Black: the head and thorax coarsely punctured; the face and cheeks with bright silvery pubescence; on the vertex and disk of the thorax a thin auri-

chalceous pile; the clypeus and base of the mandibles yellowish-white; on the clypeus anteriorly is a triangular black spot, the tips of the mandibles rufo-piceous, the scape in front and one or two of the basal joints of the flagellum ferruginous; the rest of the flagellum is fusco-ferruginous beneath. Thorax: an interrupted line on the collar, the tubercles and a transverse line at the base of the scutellum, yellow; the tegulæ, posterior angles of the mesothorax and the legs ferruginous; the coxæ and trochanters black, except at their apex; at the base of the metathorax a coarsely reticulated enclosed space; the lateral angles spinose and covered with silvery pubescence. Abdomen: the four basal segments have laterally an oblong subovate pale yellow macula; the abdomen is finely punctured above and strongly so beneath.

Male.—Very closely resembles the female, but has the clypeus immaculate, the scape and basal joint of the flagellum yellow in front, and the abdomen has two additional spots on the fifth segment.

Hab. Albania. (Coll. S. S. Saunders, Esq.)

9. Nysson decem-maculatus.

Nysson decem-maculatus, *Spin. Ins. Lig.* ii. 41.
Van d. Lind, Obs. ii. 33. 5.
Dahlb. Hym. Europ. i. 171. 104.

Hab. Italy.

10. Nysson abdominalis.

Nysson abdominale, *Guér. Icon. Règ. Anim.* iii. 441.

Hab. Senegal.

11. Nysson basalis.

Male. Length 4 lines.—Black: the face thinly covered with silvery pubescence; the apical joint of the antennæ rufo-testaceous; the head and thorax rugose; the posterior angles of the metathorax covered with silvery pubescence; the wings fusco-hyaline. The base of the abdomen covered with silvery pile; at the lateral apical margins of the four basal segments an elongate, subovate, yellowish-white macula, each in succession smaller than that on the basal segment; sometimes a minute one on the fifth segment; the lateral apical margins of the sixth and seventh segments produced into acute spines, the apical margin of the seventh segment rounded.

Hab. India. (Coll. W. W. Saunders, Esq.)

12. Nysson? marginatus.

Nysson marginatus, *Spin. Ann. Soc. Ent. Fr.* x. 113. 68. t. 3. f. 11 (1841).

Hab. Cayenne.

13. Nysson rufo-pictus. B.M.

Female. Length 4 lines.—Head and thorax black; the clypeus, mandibles, scape, and five or six of the basal joints of the flagellum, ferruginous. Thorax: the collar, tubercles, a large spot beneath the wings, the tegulæ and posterior angles of the mesothorax, the scutellum, post-scutellum, and tips of the spines which arm the metathorax and the legs, ferruginous; the lateral angles of the metathorax covered with silvery pubescence. Abdomen ferruginous; the basal margin of each segment has a central triangular black spot, the entire margin of one or two of the basal segments is also narrowly black, with angular black spots at the sides; beneath, the third, fourth and fifth segments are black.

Hab. ——?

14. Nysson aurinotus.

Nysson aurinotus, *Say, Bost. Journ.* i. 368.

Hab. N. America (Indiana).

15. Nysson Gayi.

Nysson Gayi, *Spin. Gay's Chili*, vi. 347. 1.

Hab. Chili.

Genus 5. SERICOPHORUS.

Sericophorus (*Shuck. MSS.*), *Smith, Ann. & Mag. Nat. Hist.* 2nd ser. vii. 32 (1851).
Tachyrrhostus, *Sauss. Mém. Soc. Phys. Genève*, fasc. 1. 24 (1854).

1. Sericophorus chalybeus. Pl. IX. fig. 1. B.M.

Sericophorus chalybeus, *Ann. & Mag. Nat. Hist.* 2nd ser. vii. 32.
Tachyrrhostus cyaneus, *Sauss. Mém. Soc. Phys. Genève*, fasc. 1. 26. 14.

Hab. Australia.

2. Sericophorus viridis.

Tachyrrhostus viridis, *Sauss. Mém. Soc. Phys. Genève*, fasc. 1. 25. 13.

Hab. Australia.

3. Sericophorus relucens. B.M.

Female. Length 3 lines.—Black: the front with a fine golden pile, that on the cheeks silvery; the flagellum of an orange-yellow beneath; the mandibles ferruginous, palest at their base. The prothorax posteriorly ferruginous, with an interrupted transverse pale yellow line; the scutellum, post-scutellum, tegulæ and legs ferruginous; the coxæ, trochanters, and extreme base of the femora black; the hinder margin of the mesothorax with a little golden pubescence; the metathorax has an enclosed portion at the base above, which is covered with thin golden pile; at the base of the metathorax is a transverse deep channel, from which a broad deep one runs downwards to the insertion of the abdomen; the wings hyaline, the nervures ferruginous. Abdomen covered with a rich effulgent golden pile, the segments in certain lights exhibiting angular silvery patches of pubescence; the apical margins of the segments narrowly rufo-piceous; the apical segment ferruginous; beneath smooth and shining, with a few scattered punctures.

Hab. Australia (Adelaide).

Genus 6. PALARUS.

Crabro, pt., *Fabr. Spec. Ins.* i. 470.
Philanthus, pt., *Fabr. Syst. Piez.* 304. 13 (1804).
Palarus, *Latr. Hist. Nat.* xiii. 74.
Gonius, *Jurine, Hym.* 205 (1807).

1. Palarus flavipes. B.M.

Crabro flavipes, *Fabr. Spec. Ins.* i. 470; *Mant. Ins.* i. 295. 8.
Rossi, Faun. Etrus. Mant. i. 136. 301.
Oliv. Encycl. Méth. vi. 513. 10.
Philanthus flavipes, *Fabr. Ent. Syst.* ii. 290. 7; *Syst. Piez.* 304. 13.
Panz. Faun. Germ. 84. 24.
Palarus flavipes, *Latr. Hist. Nat.* xiii. 74. t. 14. f. 1 ♂; *Encycl. Méth.* viii. 651. 3; *Gen. Crust. et Ins.* iv. 74. t. 14. f. 1.
Desm. Dict. Sc. Nat. i. 251.
Guér. Dict. Class. xii. 607.
Van d. Lind, Obs. i. 20. 1.
Dahlb. Hym. Europ. i. 124. 60.
St. Farg. Hym. iii. 232. i. t. 27. f. 4 ♂.
Sauss. Mém. Soc. Phys. Genève, xiv. fasc. i. 13.
Gonius flavipes, *Jurine, Hym.* 205. t. 10. gen. 24 ♂.
Panz. Krit. Revis. ii. 178.

Hab. France; Italy; Spain; Germany.

2. Palarus histrio.

Palarus histrio, *Spin. Ann. Soc. Ent. Fr.* 1st ser. vii. 474. 25 (1838).
Savigny, Expéd. d'Egypt. t. 11. f. 14?
St. Farg. Hym. iii. 233. 2.
Sauss. Mém. Soc. Phys. Genève, xiv. fasc. 1. 13.
Palarus lætus, *Klug, Symb. Phys.* dec. v. t. 47. f. 4, 5.

Hab. Egypt (Sakkara).

3. Palarus Spinolæ.

Palarus Spinolæ, *Sauss. Mém. Soc. Phys. Genève*, xiv. fasc. 1. 14. f. 3 ♀.

Hab. Egypt.

4. Palarus rufipes.

Palarus rufipes, *Oliv. Encycl. Méth.* viii. 651. 2.
Spin. Ann. Soc. Ent. Fr. 1st ser. vii. 475. 14 ♂.
Sauss. Mém. Soc. Phys. Genève, xiv. fasc. 1. 15.

Hab. Egypt.

5. Palarus Dongalensis.

Palarus Dongalensis, *Klug, Symb. Phys.* dec. v. t. 47. f. 1, 2.

Hab. Ethiopia (Ambukohl).

6. Palarus humeralis. Pl. IX. fig. 2. B.M.

Palarus humeralis, *Duf. Ann. Soc. Ent. Fr.* (1853) p. 379 ♂ ♀.
Savig. Descr. de l'Egypt. t. 11. f. 13 ♀.
Sauss. Mém. Soc. Phys. Genève, xiv. fasc. 1. 13.

Hab. Algeria.

7. Palarus lepidus.

Palarus lepidus, *Klug, Symb. Phys.* dec. v. t. 47. f. 3.

Hab. Egypt (Sakkara).

8. Palarus ambustus.

Palarus ambustus, *Klug, Symb. Phys.* dec. v. t. 47. f. 6.

Hab. Egypt (Sakkara).

Genus 7. HELIORYCTES.

Head transverse, about the width of the thorax; eyes oval, converging at the vertex; the stemmata placed in a triangle to-

wards the vertex; antennæ short, subfiliform, slightly thickened in the middle, pointed at the apex; the scape short, thick and cylindrical; the first joint of the flagellum short, about half the length of the second, the rest of about equal length; mandibles arcuate, acute at their apex, not toothed within, with a dentate process beneath towards the base; the labrum concealed. Thorax rotundate, the collar narrow, transverse; the scutellum transverse, oblong-quadrate; the metathorax truncated, with a mucro at the sides and about the middle of the truncation; the superior wings with one marginal and three submarginal cells; the marginal cell elongate, rounded at the apex, and slightly appendiculated; the first submarginal cell elongate, twice the length of the second and third united; the second submarginal cell petiolated; the third oblique, of nearly equal width; the first recurrent nervure received by the first submarginal cell near its apex; the second recurrent nervure entering the second submarginal cell near its apex; the legs stout; the anterior tarsi ciliated outside, the intermediate and posterior tibiæ spinose; the claws simple, having a pulvillus in their fork. Abdomen ovato-conic, truncated at the base, the apex acute.

1. Helioryctes melanopyrus. Pl. IX. fig. 3.

Female. Length 4 lines.—Head and thorax black, opake, finely and very closely punctured; the palpi pale rufo-testaceous, the mandibles ferruginous in the middle. Thorax: the metathorax above enclosed by a half-circular ridge, the enclosed space reticulated; wings dark fuscous, nearly black; the legs ferruginous, with the coxæ, trochanters, and base of the anterior femora behind, black; the posterior tibiæ incrassated towards their apex, roughened outside, and furnished with three rows of short acute spines; the intermediate tibiæ not roughened, but similarly armed to the posterior pair. Abdomen ferruginous, very closely and finely punctured, the two apical segments very smooth and shining, with a few scattered fine punctures; the sides of the apical segment carinated.

Hab. The Gambia. (Coll. F. Smith.)

Genus 8. GORYTES.

Sphex, pt., *Linn. Syst. Nat.* i. 941 (1766)
Vespa, pt., *Linn. Syst. Nat.* i. 948 (1766).
Crabro, pt., *Rossi, Faun. Etrus. App.* 123 (1790).
Mellinus, pt., *Fabr. Ent. Syst.* ii. 285 (1793).
Gorytes, *Latr. Hist. Nat.* xiii. 308 (1805).
Arpactus, *Jurine, Hym.* 194 (1807).

Hoplisus, *St. Farg. Ann. Soc. Ent. Fr.* i. 62 (1832).
Euspongus, *St. Farg. Ann. Soc. Ent. Fr.* i. 66 (1832).
Lestiphorus, *St. Farg. Ann. Soc. Ent. Fr.* i. 70 (1832).
Psammæcius, *St. Farg. Ann. Soc. Ent. Fr.* i. 72 (1832).
Agraptus, *Wesm. Hym. Foss. Belg.* 9.

1. Gorytes mystaceus. B.M.

Sphex mystacea, *Linn. Faun. Suec.* 412. no. 1653 ♂; *Syst. Nat.* i. 944. 21, & *Cab. Mus. Linn. Soc.*
Villers, Ent. iii. 231. 32.
Christ. Hym. 270.
Vespa campestris, *Linn. Faun. Suec.* 417. no. 1677 ♀; *Syst. Nat.* i. 950. 13, & *Cab. Mus. Linn. Soc.*
Fabr. Syst. Ent. 369. 31.
Rossi, Faun. Etrus. ii. 88. 873.
Christ. Hym. 234.
Oliv. Encycl. Méth. vi. 689. 96.
Mellinus mystaceus, *Fabr. Ent. Syst.* ii. 285. 1.
Panz. Faun. Germ. 53. 11.
Mellinus campestris, *Fabr. Ent. Syst.* ii. 287. 6; *Syst. Piez.* 299. 9.
Arpactus campestris, *Panz. Krit. Revis.* ii. 165.
Arpactus mystaceus, *Jurine, Hym.* 194.
Gorytes mystaceus, *Latr. Gen. Crust. et Ins.* iv. 89.
Illig. ed. Faun. Etrus. ii. 144. 873.
Van d. Lind, Obs. ii. 94. 9.
Shuck. Foss. Hym. 211. 1.
Dahlb. Hym. Europ. i. 166. 98.
St. Farg. Hym. iii. 55. 1. t. 25. f. 8 ♀.
Wesm. Hym. Foss. Belg. 85. 1.

Hab. Britain; Italy; France; Germany; Belgium; Norway; N. America.

2. Gorytes quadrifasciatus. B.M.

Mellinus quadrifasciatus, *Fabr. Syst. Piez.* 298. 5 ♂.
Gorytes 4-fasciatus, *Latr. Gen. Crust. et Ins.* iv. 89.
Van d. Lind, Obs. ii. 96. 10 ♂ ♀.
Shuck. Foss. Hym. 215. 3.
Wesm. Not. Gor. Bull. Acad. Brux. vi. 10. 4.
Gorytes dissectus, *Panz. Faun. Germ.* 80. 18?
Gorytes arenarius, *Van d. Lind, Obs.* ii. 97. 11 ♂.
Euspongus vicinus, *St. Farg. Ann. Soc. Ent. Fr.* i. 68. 2 (1832).
Gorytes libitinarius, *Curtis, Brit. Ent.* xi. 524.
Hoplisus quadrifasciatus, *Dahlb. Hym. Eur.* i. 159. 91.
Wesm. Hym. Foss. Belg. 86. 1.

Hab. Britain; France; Germany; Belgium.

3. Gorytes Fargeii. B.M.

Gorytes campestris, *St. Farg. Ann. Soc. Ent. Fr.* i. 58. 2 (1832).
Wesm. Not. Gor. Bull. Acad. Brux. vi. 5. 2, & *Hym. Foss. Belg.* 85. 2.
Mellinus quadrifasciatus, *Panz. Faun. Germ.* 98. 17 (*nec* synon.).
Gorytes Fargeii, *Shuck. Foss. Hym.* 214. 2.

Hab. Britain; France; Germany; Belgium; Scandinavia.

4. Gorytes laticinctus. B.M.

Euspongus laticinctus, *St. Farg. Ann. Soc. Ent. Fr.* i. 66. 1 (1832).
Gorytes laticinctus, *Shuck. Foss. Hym.* 217. 4.
Wesm. Not. Gor. Bull. Acad. Brux. vi. 11. 5.
Hoplisus laticinctus, *Dahlb. Hym. Europ.* 161. 92?
Wesm. Hym. Foss. Belg. 86. 2.

Hab. Britain; France; Germany; Belgium.

5. Gorytes bicinctus. B.M.

Crabro bicinctus, *Rossi, Faun. Etrus. App.* 123. 110.
Gorytes bicinctus, *Van d. Lind, Obs.* ii. 93. 7.
Curtis, Brit. Ins. ii. fol. 524. t. 524.
Shuck. Foss. Hym. 219. 5.
Wesm. Not. Gor. Bull. Acad. Brux. vi. 11. 6.
Lestiphorus bicinctus, *St. Farg. Ann. Soc. Ent. Fr* i. 70. 1 (1832).
Dahlb. Hym. Europ. i. 156. 90.
Wesm. Hym. Foss. Belg. 94. 1.

Hab. Britain; France; Italy; Germany; Belgium.

6. Gorytes quinquecinctus. B.M.

Mellinus 5-cinctus, *Fabr. Ent. Syst.* ii. 287. 7; *Syst. Piez.* 299. 11.
Panz. Faun. Germ. 72. 14.
Hoplisus quinquecinctus, *Wesm. Not. Gor. Bull. Acad. Brux.* vi. 10. 3, & *Hym. Foss. Belg.* 89. 4.
Dahlb. Hym. Europ. i. 162. 91.
St. Farg. Hym. iii. 60. 1.

Hab. France; Germany; Belgium.

This is very distinct from examples of *G. 4-cinctus* (var. with five yellow bands); the scape and three or four of the basal joints of the flagellum are yellow beneath, and much more slender than in *G. 4-cinctus*; the femora are yellow, with a black stripe above.

7. Gorytes albilabris.

Euspongus albilabris, *St. Farg. Hym.* iii. 71. 3.

Hab. France (Bordeaux).

8. Gorytes Lacordairei.

Hoplisus Lacordairei, *St. Farg. Ann. Soc. Ent. Fr.* ii. 64. 2 (1833); *Hym.* iii. 64. 2.

Hab. France.

9. Gorytes punctulatus. B.M.

Psammæcius punctulatus, *St. Farg. Ann. Soc. Ent. Fr.* i. 721 (1832); *Hym.* iii. 75. 1.
Gorytes punctulatus, *Van d. Lind, Obs.* ii. 100. 14?
Hoplisus latifrons, *Dahlb. Hym. Europ.* i. 164. 96?

Hab. France (Paris).

10. Gorytes albidulus.

Hoplisus albidulus, *St. Farg. Ann. Soc. Ent. Fr.* i. 65. 3 ♀ (1832); *Hym.* iii. 65. 3.
Dahlb. Hym. Europ. i. *synop. spec.* 482. 2.

Hab. France (Paris).

11. Gorytes pulchellus.

Hoplisus pulchellus, *Wesm. Hym. Foss. Belg.* 90. 5.

Hab. Belgium.

12. Gorytes planifrons.

Hoplisus planifrons, *Wesm. Hym. Foss. Belg.* 87. 3.

Hab. Belgium.

13. Gorytes elegans.

Female. Length 4½ lines.—Black: the face opake, the vertex slightly shining and delicately punctured; a minute spot on each side of the clypeus, another on the inner orbit of the eyes, and a spot on the scape in front, pale yellow; the palpi pale rufo-testaceous; the mesothorax and scutellum smooth and shining; the metathorax coarsely rugose, the enclosed space at the base of the metathorax divergently rugose-striate; the collar, a spot beneath the wings, and a transverse one on the scutellum, yellow; the wings hyaline, with a faint fuscous cloud occupying the marginal cell; the nervures and tegulæ pale rufo-testaceous;

the legs ferruginous; the coxæ, trochanters, and base of the anterior femora, black. Abdomen with fine pale yellow bands, that on the basal segment interrupted, the spots pointed within; beneath, impunctate.

Hab. Albania. (Coll. W. W. Saunders, Esq.)

This species very closely approaches the *Hoplisus albidulus*, but St. Fargeau describes the scutellum as being immaculate.

14. Gorytes concinnus. B.M.

Sphex concinna, *Rossi, Faun. Etrus.* (*ed. Illig.*) ii. 825. t. 6. f. 5.
Gorytes concinnus, *Van d. Lind, Obs.* ii. 92. 3.
Harpactes concinnus, *Dahlb. Hym. Europ.* i. 149. 81.
Agraptus concinnus, *Wesm. Hym. Foss. Belg.* 9.

Hab. Italy (Florence).

15. Gorytes iridipennis.

Female. Length 3 lines.—Black: the scape in front, the clypeus, labrum, mandibles and palpi, of a testaceous yellow; the tips of the mandibles ferruginous; the flagellum rufo-testaceous beneath. Thorax: the collar, tubercles, a spot beneath the wings, an epaulet over the tegulæ, the scutellum, post-scutellum, and an oblong-ovate macula on each side of the metathorax, yellow; the mesothorax with large scattered punctures; the suture at the base of the scutellum consute; at the base of the metathorax is an angular space longitudinally grooved, but not enclosed; on each side are a few scattered punctures; wings hyaline and splendidly iridescent, the marginal cell occupied by a fuscous cloud; the legs pale rufo-testaceous; the anterior tibiæ behind, and the intermediate and posterior tarsi, femora and tibiæ, slightly fuscous above. Abdomen: the basal segment with a broad yellow band on the apical margin, which is emarginate in the middle; the four following segments have a narrow yellow marginal fascia; the four apical segments coarsely punctured; the marginal fasciæ are continued beneath, the apical segment entirely yellow.

Hab. Brazil (Santarem). (Coll. W. W. Saunders, Esq.)

16. Gorytes sericatus. B.M.

Female. Length 4 lines.—Black, covered with a fine silky pile: the clypeus, scape in front, and the mandibles, yellow; tips of the latter ferruginous. Thorax smooth and slightly shining; the collar and posterior margin of the scutellum yellow; the suture at the base of the scutellum consute; the enclosed space

at the base of the scutellum elongate, forming half an oval, which is enclosed by a ridge; outside of the ridge a channel runs round the enclosed space, the channel transversely striated, the enclosure longitudinally grooved, forming eight sharp carinæ; the metathorax beyond the enclosure coarsely reticulated; the wings hyaline, with a faint cloud crossing the anterior pair at the base of the first submarginal cell; a cloud also occupies the marginal cell. Abdomen petiolated; a narrow yellow band on the apical margins of the second and three following segments; the apical segment reddish-yellow.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

17. Gorytes fumipennis. B.M.

Female. Length 5 lines.—Black: thinly covered with a fine sericeous pile, that on the face bright and silvery; the head and thorax impunctate; the scape, extreme apex of the antennæ, clypeus, labrum and palpi, yellow; an ovate dark macula in the middle of the clypeus, touching its anterior margin. Thorax: a minute spot on each side of the mesothorax, touching the tegulæ, a transverse stripe on the apical margin of the scutellum, and a large oblong-ovate macula on each side of the metathorax, yellow; the suture at the base of the scutellum consute; the anterior wings dark fuscous, but hyaline beyond the marginal and second submarginal cells; the posterior wings faintly coloured at their anterior margin; the legs yellow beneath, the anterior tarsi and third and fourth joints of the intermediate and posterior pairs entirely so; the coxæ and basal joint of the posterior tarsi black; the apical joint of the intermediate and posterior tarsi fuscous. Abdomen petiolated, the basal segment yellow, with a large subovate black macula in the middle, above; the second segment has a very narrow yellow fascia on its apical margin.

Hab. Brazil?

18. Gorytes tristrigatus.

Mellinus tristrigatus, *Fabr. Syst. Piez.* 299. 7.
Hoplisus Behni, *Dahlb. Hym. Europ.* i. 165. 97.
Hoplisus tristrigatus, *Dahlb. Hym. Europ.* i. *synop. spec.* 483. 6 ♂ ♀.

Hab. Brazil.

19. Gorytes Brasiliensis. B.M.

Gorytes Brasiliensis, *Shuck. Trans. Ent. Soc. Lond.* ii. 80 (1837–40).
Hoplisus seminiger, *Dahlb. Hym. Europ.* i. *synop. spec.* 483. 7 ♀.

Hab. Brazil.

20. Gorytes Cayennensis.

Hoplisus Cayennensis, *Spin. Ann. Soc. Ent. Fr.* x. new ser. 116. 71 ♂ (1841).

Hab. Cayenne.

21. Gorytes velutinus.

Hoplisus velutinus, *Spin. Gay's Chili*, vi. 338. 1.

Hab. Chili.

22. Gorytes pictus. B.M.

Female. Length 4 lines.—Head black; the antennæ and mandibles ferruginous, the scape slightly stained with yellow at the apex in front; an abbreviated line on the inner and outer orbits of the eyes, that at the inner orbit widest and not extending to the clypeus; the anterior margin of the clypeus black; the mandibles ferruginous, yellow at their base. Thorax: the mesothorax, and the metathorax at its sides, ferruginous; the scutellum, post-scutellum, enclosed portion at the base of the metathorax, and the entire thorax beneath, black; the collar, tubercles, and the hinder margin of the scutellum, yellow; the wings hyaline, with a dark fuscous spot which occupies the marginal, second submarginal, and half the third submarginal cells; the nervures and tegulæ ferruginous; a spot beneath the wings and the legs ferruginous; the anterior tarsi ciliated outside, their apical joint and the intermediate tibiæ yellow in front; the posterior femora have a fuscous stripe within, and the tibiæ and tarsi are fuscous above. The first segment of the abdomen ferruginous; the second segment has a narrow pale ferruginous marginal fascia in the middle of its posterior margin, which expands at the sides and occupies the entire lateral margins; the third and fourth segments pale ferruginous, except their extreme basal margins, which are black; beneath, the abdomen is black, with the apical margins of the segments narrowly rufo-piceous.

Hab. Madras. (Coll. Sir Walter Elliott.)

23. Gorytes Natalensis. Pl. XI. fig. 3. B.M.

Female. Length 7 lines.—Black: head slightly shining, the vertex covered with short fuscous down; the clypeus covered with thin silvery pubescence, its apical margin and the mandibles ferruginous; tips of the latter black; the scape yellow in front, the flagellum ferruginous beneath. Thorax: the collar, tubercles, lateral margins of the mesothorax, the tegulæ and scutellum,

obscurely ferruginous; the metathorax smooth and shining, and thinly covered with fuscous pile; the legs ferruginous, with the coxæ fuscous, except at their apex; the tibiæ and femora more or less fuscous above; the claw-joint of the anterior and intermediate tarsi, and the posterior pair, yellow, their extreme base fuscous; the anterior tarsi with long cilia exteriorly; all the tibiæ spinose; wings slightly coloured, with a dark fuscous cloud occupying the marginal cell and extending over the upper half of the second and third submarginal cells, and passing beyond to the apex of the wing; a fuscous spot at the apex of the externo-medial cell. Abdomen petiolated, smooth and shining, the second segment yellow, the apical segment ferruginous, the superior surface flat, the lateral margins raised, the surface punctured, the apex produced into an elongate style.

Hab. Port Natal. (Coll. Mr. Plant.)

24. Gorytes tarsatus. B.M.

Male. Length 4 lines.—Black: the apex of the scape and the basal joint of the flagellum yellow in front; an abbreviated yellow line on the inner orbit of the eyes, in the middle; the apical joint of the flagellum slightly bent; the face thinly covered with a fine sericeous pile; the head closely punctured. Thorax coarsely punctured; the scutellum and post-scutellum coarsely rugose-striate; the metathorax coarsely rugose, the enclosed space at the base with coarse divergent striæ; the collar with an orange-yellow spot on each side; the anterior wings with a dark fuscous cloud along their anterior margins; the anterior tibiæ and tarsi of a reddish-yellow, the former with a dark stain behind; the tarsi are also darkest above; the intermediate and posterior tarsi pale yellow, nearly white, the apex of the joints black, as well as the claw-joint of all the tarsi. Abdomen punctured, the first, second and third segments with an orange-yellow marginal fascia; the first two widest and notched in the middle; the apex rounded, with the margin ferruginous; beneath, the second segment is shining, and has a number of large scattered punctures; the following segments finely punctured at their base and coarsely so on their apical margins.

Hab. Adelaide.

25. Gorytes carbonarius. B.M.

Female. Length 4½ lines.—Jet-black, shining and delicately punctured: the face, cheeks, sides of the thorax and base of the abdomen with a thin black pubescence. The anterior tarsi ciliated; the mesothorax has an abbreviated slightly impressed

line in the centre of its anterior margin, and a similar one on each side; an impressed line on each side over the tegulæ; the suture at the scutellum consute; the metathorax smooth; the enclosed space at the base of the metathorax with a central abbreviated impressed line at the base; wings smoky-hyaline, the nervures black. Abdomen: the margins of the segments slightly depressed; beneath, the second segment abruptly produced at the base.

The male only differs in having the antennæ longer and the abdomen more strongly punctured.

Hab. New Zealand.

26. Gorytes bipunctatus.

Gorytes bipunctatus, *Say, Narr. Exped. St. Peter's River*, p. 72. *Dahlb. Hym. Europ.* i. 157.

Hab. Pennsylvania; South Carolina.

27. Gorytes fulvipennis.

Female. Length 4½ lines.—Black, smooth and shining: the clypeus, labrum, mandibles, an abbreviated line at the inner orbit of the eyes, and the scape in front, yellow; the tips of the mandibles and the antennæ ferruginous; the flagellum fuscous towards the apex above, excepting the apical joint. Thorax: the collar, tubercles, a spot beneath the wings, the hinder margin of the scutellum, and an ovate spot on each side of the metathorax close to the insertion of the abdomen, yellow; wings fulvous, with a fuscous cloud in the marginal cell, the nervures and tegulæ ferruginous; the legs ferruginous; the coxæ, trochanters and base of the femora black, the apex of the two former ferruginous. Abdomen: the apical margins of the segments with a narrow yellow fascia, and the apical segment yellow.

Hab. N. America (United States). (Coll. W. W. Saunders, Esq.)

28. Gorytes similimus. B.M.

Female. Length 5 lines.—Black: the head shining, delicately punctured, and with larger scattered punctures; the scape in front, four or five of the basal joints of the flagellum, the clypeus, and a line on the inner orbit of the eyes, yellow. Thorax: the collar, tubercles, hinder margin of the scutellum, and a small ovate spot on each side of the metathorax, yellow; the disk smooth and shining, with four abbreviated lines at its anterior margin; the suture at the base of the scutellum consute; the enclosed portion at the base of the metathorax striated at the base and smooth towards the apex; a deep channel runs

from the base to the apex of the metathorax; the wings fusco-hyaline, palest at their apex, with a dark fuscous cloud occupying the marginal cell; the tibiæ, tarsi, and tips of the femora, yellow; the tibiæ behind and the posterior tarsi above, rufo-fuscous. Abdomen smooth and shining; a narrow yellow fascia on the posterior margin of each segment; a single style or process at the apex of the abdomen.

Hab. Nova Scotia. (Coll. Lieut. Redman.)

This species at first sight closely resembles the *G. 4-cinctus* of Europe.

29. Gorytes nigrifrons. B.M.

Female. Length 4½ lines.—Black: the head finely and closely punctured, the face with a thin silvery pubescence; the clypeus coarsely punctured, and having two minute yellow spots at the base; the scape yellow in front, and three or four of the basal joints of the flagellum of a reddish-yellow beneath; the apical half of the mandibles ferruginous. Thorax subopake and very closely punctured; the collar, tubercles, a spot beneath the wings, a stripe over the tegulæ, and the post-scutellum, yellow; wings subhyaline, the marginal cell occupied by a dark fuscous cloud, which does not extend beyond it; the tibiæ and tarsi yellow, the tibiæ with a ferruginous stain behind; the claw-joint of the tarsi, the femora and coxæ dark rufo-piceous; the calcaria and claws pale. Abdomen shining and very finely punctured, covered with a fine sericeous pile, very brilliant in certain lights; the three basal segments with a yellow marginal fascia, the first widest, slightly notched in the middle and widened laterally; beneath, black and covered with a short griseous pubescence; the second segment with some scattered large deep punctures.

Hab. Nova Scotia. (Coll. Lieut. Redman.)

30. Gorytes placidus.

Female. Length 3½ lines.—Black, shining and strongly punctured: the antennæ, clypeus, inner orbit of the eyes, labrum, mandibles and palpi, orange-red; tips of the mandibles rufo-piceous; the flagellum with the fourth and following joints fuscous above. Thorax: the collar, tubercles, an irregular-shaped spot beneath the wings, the sides of the disk of the mesothorax, the scutellum and metathorax, orange-red; the enclosed space at the base of the metathorax black and longitudinally grooved; the suture at the base of the scutellum consute; the anterior wings with a dark fuscous cloud extending from the base to their apex, and occupying more than half the width of the wings,

their posterior margin, as well as the posterior wings, subhyaline; the legs orange-red. Abdomen: the basal segment and posterior margin of the second segment orange-red, the latter widely emarginate at its anterior margin; the three apical segments very coarsely punctured.

The male differs in having the flagellum fuscous except the basal joint; the clypeus and inner orbit of the eyes yellow.

Hab. East Florida. (Coll. F. Smith.)

31. Gorytes rufipes. B.M.

Female. Length 4 lines. — Black: the head and thorax strongly punctured; the scape, flagellum beneath, and three or four of the basal joints entirely, the anterior margin of the clypeus, a line on the inner orbit of the eyes, the labrum, mandibles and palpi, reddish-yellow, varying in different specimens. Thorax: the collar, tubercles, a spot beneath the wings, the lateral margins of the mesothorax and the scutellum, reddish-yellow; the metathorax and legs ferruginous, the enclosed portion at the base of the former black and longitudinally striated; the anterior wings with a broad fuscous cloud extending from the base to their apex, their posterior margin subhyaline, as well as the posterior wings. Abdomen shining and strongly punctured, the apical segments coarsely so; the basal segment ferruginous, its posterior margin, as well as that of the second, and sometimes of the two following segments, with an orange-yellow fascia; the first two bands widest, the second slightly emarginate in the middle; beneath black, the second segment with scattered large deep punctures; the following segments are smooth at their basal and punctured at their apical margins. Some examples have only two bands on the abdomen.

Hab. East Florida (St. John's Bluff). (Coll. E. Doubleday, Esq.)

32. Gorytes apicalis. B.M.

Male. Length 5 lines.—Black, smooth and shining: six or seven of the basal joints of the antennæ ferruginous; the scape in front, the clypeus, face on each side, a narrow line at the inner orbit of the eyes, not reaching their vertex, the labrum, mandibles and palpi, sulphur-yellow; the tips of the mandibles ferruginous. Thorax: the collar, tubercles, an irregularly-shaped large spot beneath the wings, an epaulet over the tegulæ, the scutellum, post-scutellum, and a large subovate macula on each side of the metathorax, yellow; the suture at the base of the scutellum smooth; the anterior legs yellow, the intermediate and posterior pairs pale ferruginous; the base of the coxæ black;

the wings brown, with the apex of the anterior pair hyaline. Abdomen: the apical margin of the segments with a broad yellow fascia which is continued beneath; that on the first segment has a small notch in the middle, and the two following are slightly attenuated in the middle; beneath, the bands are much dilated at the sides.

Hab. Georgia.

33. Gorytes divisus. B.M.

Male. Length 4 lines.—Black: the head shining, with scattered punctures; the antennæ, clypeus, sides of the face, labrum, mandibles and palpi, of a reddish-yellow. Thorax shining, the collar, tubercles, a spot beneath the wings, and the posterior margin of the scutellum, yellow; the wings fusco-hyaline, darkest in the marginal cell, the nervures and tegulæ rufo-testaceous; the legs ferruginous, the tarsi yellowish; the suture at the base of the scutellum smooth. Abdomen: the first two segments smooth and shining, the five apical segments subopake and strongly punctured, the whole covered with a fine sericeous pile; the second segment much swollen, very convex; the first and second segments have a broad fascia on their apical margins, of a bright yellow, more or less suffused with ferruginous; the third and fourth segments have a narrow slightly interrupted fascia on their apical margins, the apex furnished with a single tooth or minute spine.

Hab. Georgia.

Genus 9. HARPACTUS.

Mutilla, pt., *Latr. Act. Soc. Nat. Par.* i. 11 (1792).
Sphex, pt., *Fabr. Ent. Syst. Supp.* 243 (1798).
Evania, pt., *Fabr. Ent. Syst. Supp.* 241 (1798).
Ceropales, pt., *Fabr. Syst. Piez.* 185 (1804).
Pompilus, pt., *Fabr. Syst. Piez.* 187 (1804).
Mellinus, pt., *Latr. Hist. Nat.* xiii. 318 (1804).
Arpactus, *Jurine, Hym.* 192 (1807).
Larra, pt., *Dahlb. Exercit. Hym.* 51 (1833).
Harpactus, *Shuck. Foss. Hym.* 221 (1837).

1. Harpactus lævis. B.M.

Mutilla lævis, *Latr. Act. Soc. Nat. Par.* i. 11. 12.
Sphex cruenta, *Fabr. Ent. Syst. Supp.* 244. 54–55.
Evania ruficollis, *Fabr. Ent. Syst. Supp.* 241. 3–4?
Ceropales ruficollis, *Fabr. Syst. Piez.* 186. 6?

Pompilus cruentus, *Fabr. Syst. Piez.* 192. 20.
Panz. Faun. Germ. 84. 20.
Coqueb. Illustr. i. 23. t. 5. f. 10.
Mellinus cruentatus, *Latr. Hist. Nat.* xiii. 318. 1.
Gorytes lævis, *Van d. Lind, Obs.* ii. 91. 1.
Arpactus lævis, *St. Farg. Ann. Soc. Ent. Fr.* i. 74. 1 (1832); *Hym.* iii. 79. 1.
Shuck. Foss. Hym. 221. 1.
Dahlb. Hym. Europ. i. 148. 79.

Hab. Britain?; France; Germany; Belgium.

2. Harpactus tumidus. B.M.

Pompilus tumidus, *Panz. Faun. Germ.* 81. 15 ♂.
Mellinus tumidus, *Panz. Krit. Revis.* ii. 169.
Arpactus tumidus, *Jurine, Hym.* 194.
St. Farg. Ann. Soc. Ent. Fr. i. 77. 3.
Shuck. Foss. Hym. 222. 2.
Dahlb. Hym. Europ. i. 149. 80.
St. Farg. Hym. iii. 82. 3.
Wesm. Hym. Foss. Belg. 95. 2.
Larra tumida, *Dahlb. Exercit. Hym.* 51. 3.

Hab. Britain; France; Germany; Belgium; Sweden.

3. Harpactus lunatus.

Gorytes lævis, *Van d. Lind, Obs.* ii. 91. 1. var. β.
Larra lunata, *Dahlb. Exercit. Hym.* 52. 4.
Harpactes lunatus, *Dahlb. Hym. Europ.* i. 147. 78.
Arpactus lunatus, *Wesm. Hym. Foss. Belg.* 95. 1.

Hab. Germany; Belgium; Norway; Finland (Helsingfors). (Coll. F. Smith.)

4. Harpactus formosus.

Arpactus formosus, *Jurine, Hym.* t. 10. f. 20.
St. Farg. Ann. Soc. Ent. Fr. i. 75. 2.
Harpactes formosus, *Dahlb. Hym. Europ.* i. 149. 80.

Hab. France; Germany.

5. Harpactus ornatus.

Female. Length 2½ lines.—The head black, with the scape in front, the clypeus, inner orbit of the eyes, labrum, palpi and mandibles, yellow; tips of the latter ferruginous; the hinder margin of the vertex and upper portion of the inner orbit of the eyes ferruginous. Thorax red, with a black stain on the pectus;

the legs rufo-piceous, more or less fuscous above; the wings hyaline, with a faint cloud crossing the anterior wings towards their apex. Abdomen shining black; the basal segment smooth, the second punctured, and having on each side a large subovate white macula, the maculæ connected by a narrow band on the apical margin of the segment; the fifth segment white.

Hab. Northern India. (Coll. F. Smith.)

This species very closely resembles the European *H. formosus*, but it differs in having a red prothorax and vertex, the metathorax is much more coarsely rugose, and the thorax shorter and broader altogether.

6. Harpactus affinis.

Harpactes affinis, *Dahlb. Hym. Europ.* i. 150. 83.

Hab. Italy.

7. Harpactus elegans.

Arpactus elegans, *St. Farg. Hym. Ann. Soc. Ent. Fr.* i. 79. 5 (1832); *Hym.* iii. 84. 5.

Hab. France.

8. Harpactus Carceli.

Gorytes Carceli, *St. Farg. Ann. Soc. Ent. Fr.* i. 78. 4 ♂ (1832); *Hym.* iii. 83. 4.
Dahlb. Hym. Europ. i. 151. 84.

Hab. France; Germany.

9. Harpactus larroides.

Arpactus larroides, *Spin. Gay's Chili,* vi. 341. 2.

Hab. Chili.

10. Harpactus Gayi.

Arpactus Gayi, *Spin. Gay's Chili,* vi. 340. 1.

Hab. Chili.

Genus 10. ALYSON.

Sphex, pt., *Panz. Faun. Germ.* fasc. 51.
Alyson, *Jurine, Hym.* 196 (1807).

1. Alyson spinosus. B.M.

Alyson spinosus, *Jurine, Hym.* 196. t. 10. f. 21 ♀.

Alyson spinosus, *St. Farg. & Serv. Encycl. Méth.* x. 50. 4.
Van d. Lind, Obs. ii. 89. 3.
St. Farg. Hym. iii. 87. 2.
Alyson bimaculatus, *Dahlb. Hym. Europ.* i. 146 (var.) & 474.
Wesm. Hym. Foss. Belg. 99. 2 (var.?).

Hab. France; Germany.

The examples of this species in the Collection of the British Museum are very distinct from those of *A. bimaculatus*; the sculpture of the metathorax is very different, and the females have a white scutellum.

2. Alyson tricolor. B.M.

Alyson tricolor, *St. Farg. & Serv. Encycl. Méth.* x. 50. 4.
Van d. Lind, Obs. ii. 90. 4.
St. Farg. Hym. iii. 89. 5.
Wesm. Hym. Foss. Belg. 98. 1.

Hab. France; Germany; Belgium.

3. Alyson bimaculatus. B.M.

Sphex fuscata, *Panz. Faun. Germ.* 51. 3.
Alyson bimaculatus, *Jurine, Hym.* 196.
Panz. Krit. Revis. ii. 170.
Van d. Lind, Obs. ii. 88. 2.
Dahlb. Hym. Europ. i. 142. 76 & 474.
St. Farg. Hym. iii. 88. 3 ♀.
Wesm. Hym. Foss. Belg. 99. 2.
Alyson fuscatus, *Panz. Krit. Revis.* ii. 171.
St. Farg. Hym. iii. 58. 4.

Hab. France; Germany; Belgium.

4. Alyson melleus.

Alyson melleus, *Say, Bost. Journ.* i. 380. 2.

Hab. N. America (Indiana).

5. Alyson oppositus.

Alyson oppositus, *Say, Bost. Journ.* i. 380. 1.

Hab. N. America (Indiana).

Genus 11. DIDINEIS.

Pompilus, pt., *Fabr. Ent. Syst. Supp.* 249 (1798).
Alyson, pt., *Latr. Gen. Crust. et Ins.* iv. 86 (1809).
Didineis, *Wesm. Hym. Foss. Belg.* 96.

1. Didineis lunicornis. B.M.

Pompilus lunicornis, *Fabr. Ent. Syst. Supp.* 249. 21; *Syst. Piez.* 194. 32 ♂.
Alyson lunicornis, *Latr. Gen. Crust. et Ins.* iv. 86.
St. Farg. & Serv. Encycl. Méth. x. 50. 1.
Van d. Lind, Obs. ii. 88. 1.
Shuck. Foss. Hym. 207. 1 ♂ ♀.
Dahlb. Hym. Europ. i. 142. 75 & 474.
St. Farg. Hym. iii. 86. 1.
Alyson Kennedii, *Curtis, Brit. Ent.* xiii. fol. & tab. 584 ♀.
Didineis lunicornis, *Wesm. Hym. Foss. Belg.* 97. 1.

Hab. Britain; France; Germany; Belgium.

M. Wesmael has separated this species from the others in the genus *Alyson* in consequence of the neuration of the anterior wings being different, and the intermediate tibiæ being armed with only one spur at the apex.

Genus 12. MELLINUS.

Vespa, pt., *Linn. Faun. Suec.* 418 (1761).
Crabro, pt., *Fabr. Mant.* i. 294 (1787).
Mellinus, pt., *Fabr. Ent. Syst.* ii. 285 (1793).

1. Mellinus arvensis. B.M.

Sphex vaga, *Linn. Faun. Suec.* 414. no. 1664? (type in *Cab. Mus. Linn. Soc.*?).
Scop. Ent. Carn. 785. fig. 785.
Vespa arvensis, *Linn. Faun. Suec.* 418. no. 1678 (and *Cab. Mus. Linn. Soc.*).
De Geer, Ins. ii. 2. 820. 3.
Schrank, Ins. Austr. 392. 791.
Fabr. Mant. i. 291. 49.
Christ. Hym. 234.
Vespa superbus, *Harris, Expos. Eng. Ins.* 227. 3. t. 37. f. 3.
Crabro bipunctatus, *Fabr. Mant.* i. 296. 18.
Oliv. Encycl. Méth. vi. 516. 20.
Crabro U-flavum, *Panz. Faun. Germ.* 17. 20.
Mellinus bipunctatus, *Fabr. Ent. Syst.* ii. 286. 4; *Syst. Piez.* 298. 6.
Mellinus arvensis, *Fabr. Ent. Syst.* ii. 287. 7 ♀; *Syst. Piez.* 299. 10.
Latr. Hist. Nat. xiii. 319. 3.
Van d. Lind, Obs. ii. 84. 1 ♂ ♀.
Shuck. Foss. Hym. 203. 1.

Mellinus arvensis, *Zett. Ins. Lapp.* 440. 1.
Dahlb. Hym. Europ. i. 226. 131.
St. Farg. Hym. iii. 91. 1.
Wesm. Hym. Foss. Belg. 96. 1.

Hab Britain and throughout Europe.

The *Sphex vaga* of the Linnæan Cabinet is the male of *M. arvensis*, but it does not agree with the description in the *Fauna Suecica*; in the Cabinet are also specimens of the *Crabro vagus* of Fabricius, and in all probability the label has at some time fallen off the pin and been attached to the wrong insect; the name given by Linnæus to the female is therefore retained; there can be little doubt of the *Sphex vaga* being identical with the *Crabro vagus*, the description in the *Fauna Suecica* exactly suiting that insect.

2. MELLINUS SABULOSUS. B.M.

Crabro sabulosus, *Fabr. Mant.* i. 296. 17.
Oliv. Encycl. Méth. vi. 515. 19 ♂.
Crabro frontalis, *Panz. Faun. Germ.* 46. 11 ♂.
Crabro petiolatus, *Panz. Faun. Germ.* 46. 12 ♀.
Mellinus sabulosus, *Fabr. Ent. Syst.* ii. 286. 2.
Van d. Lind, Obs. ii. 87. 3.
Shuck. Foss. Hym. 205. 2.
Dahlb. Hym. Europ. i. 230. 133.
Curtis, Brit. Ent. xiii. fol. 180. tab. 180.
Wesm. Hym. Foss. Belg. 96. 2.
Mellinus ruficornis, *Fabr. Ent. Syst.* ii. 286. 3 ♀.
Panz. Faun. Germ. 77. 17.
Latr. Hist. Nat. xiii. 519. 4.
Mellinus fulvicornis, *Fabr. Syst. Piez.* 300. 13 ♂.
Panz. Faun. Germ. 98. 18.
Van d. Lind, Obs. ii. 86. 2.

Hab. Britain; France; Italy; Germany; Belgium; Sweden.

Fam. 7. CRABRONIDÆ.

Head usually very large; the labrum not projecting; the abdomen oval or elliptical, sometimes gradually clavate.

Crabronites, *Latr. Gen. Crust. et Ins.* iv. (1804).
Crabronida, *Leach, Edin. Encycl.* (1812).
Crabronidæ, *Leach, Edin. Encycl.* (1817).

Genus 1. TRYPOXYLON.

Sphex, pt., *Linn. Syst. Nat.* 941 (1766).
Trypoxylon, *Latr. Préc. Car. Ins.* (1796).
Apius, *Jurine, Hym.* 140 (1807).

1. TRYPOXYLON FIGULUS. B.M.

Sphex figulus, *Linn. Faun. Suec.* 1650; *Syst. Nat.* i. 942. 11.
Rossi, Faun. Etrus. ii. 61. 810.
Fabr. Ent. Syst. ii. 203. 19.
Schrank, Faun. Boic. ii. 322. 2160.
Christ. Hym. 291.
Panz. Faun. Germ. 80. 16.
Sphex fuliginosa, *Scop. Ent. Carn.* 711.
Rossi, Faun. Etrus. 63. 817.
Sphex leucostoma, *Schrank, Ins. Austr.* 771.
Illig. ed. Faun. Etrus. ii. 63. 817.
Trypoxylon figulus, *Latr. Hist. Nat.* xiii. 330.
Fabr. Syst. Piez. 181. 2.
Illig. ed. Faun. Etrus. 93. 810.
Spin. Ins. Ligur. i. 65. 1.
Shuck. Foss. Hym. 114. 1.
Van d. Lind, Obs. ii. 40. 1.
Zett. Ins. Lapp. 445. 1.
Dahlb. Dispos. Meth. Spec. Hym. 13. 82; *Hym. Europ.* i. 280 & 509. 2.
Guér. Icon. Règ. Anim. t. 71. f. 3.
St. Farg. Hym. iii. 228. 2.
Wesm. Hym. Foss. Belg. 106. 1.
Apius figulus, *Jurine, Hym.* 140. t. 9. gen. 8.

Hab. Britain; Italy; France; Germany; Belgium; Sweden; Finland; Lapland.

2. TRYPOXYLON CLAVICERUM. B.M.

Trypoxylon clavicerum, *St. Farg. & Serv. Encycl. Méth.* x. 750. 1.
Shuck. Foss. Hym. 118. 3.
Dahlb. Hym. Europ. i. 279. 175.
Wesm. Hym. Foss. Belg. 107. 2.
Trypoxylon tibiale, *Zett. Ins. Lapp.* 466.

Hab. Britain; France; Germany; Belgium; Sweden; Lapland.

3. TRYPOXYLON ATTENUATUM. B.M.

Trypoxylon attenuata, *Smith, Cat. Brit. Hym. Append.* 120.

Hab. Britain (Bristol).

4. Trypoxylon albipes.

Female. Length 4½ lines.—Black: the face covered with bright silvery pubescence; the mandibles and palpi pale testaceous; the cheeks have a silvery pubescence. Thorax thinly covered with a scattered silvery-white pubescence, which is most dense and glittering at the apex of the metathorax, on the pectus and anterior coxæ; the mesothorax and scutellum smooth and shining; at the base of the metathorax is an enclosed space, which is coarsely reticulated and has a deep central channel; on each side of the enclosed space it is transversely sulcate; wings hyaline and splendidly iridescent, the tegulæ pale testaceous; the base and extreme apex of the tibiæ pale rufo-testaceous; the tarsi white, with the apical joints slightly ferruginous. Abdomen elongate; the first two segments as long as the thorax, the basal segment slender; a fine silky short silvery-white pubescence entirely covers the abdomen, very bright in certain lights, particularly on the sides.

Hab. Albania. (Coll. W. W. Saunders, Esq.)

5. Trypoxylon pileatum.

Female. Length 4 lines.—Black: the clypeus covered with silvery pubescence; the face above the insertion of the antennæ produced into a shield-shaped form, rounded towards the vertex and triangular in front; from the lateral angles an acute edge runs into the emargination of the eyes, on each side of which is a smooth oblique plane. The mesothorax and scutellum smooth and shining; the metathorax enclosed at the base, the enclosure with coarse divergent striæ; from the apex of the enclosure an impressed channel runs downwards to the insertion of the abdomen; on each side of the channel it is delicately transversely striated and thinly covered with glittering silvery-white pubescence; the wings hyaline and beautifully iridescent. Abdomen shining, the margins of the three basal segments slightly constricted.

Hab. Madras. (Walter Elliott, Esq.)

6. Trypoxylon bicolor. B.M.

Female. Length 7 lines.—Head and thorax black; the head thinly covered with scattered cinereous pubescence; the face with bright silvery pile; the mandibles rufo-piceous, the palpi pale testaceous. Thorax thinly covered with hoary pubescence; the metathorax above with a slightly impressed central channel, subinterrupted at the verge of the oblique truncated portion, beyond which it is much broader and more deeply impressed and

is continued downwards to the insertion of the abdomen; the wings hyaline and iridescent, the tegulæ pale testaceous; the anterior tibiæ in front, the tarsi, and also the tips of the intermediate and posterior tibiæ, the knees and tips of the joints of the tarsi, pale rufo-testaceous; the calcaria pale testaceous; in some examples the tips of the coxæ, the trochanters, and the tips of the other joints are pale testaceous. Abdomen petiolated; the first segment very slender and black, the apex swollen and ferruginous, as well as the three following segments, these segments frequently more or less fuscous above, the three apical segments black.

Hab. Singapore; Java.

7. Trypoxylon elongatum. B.M.

Male. Length 3 lines.—Black: head rugose, the clypeus with silvery pubescence; the tips of the mandibles and the palpi pale testaceous. The mesothorax and scutellum shining; the metathorax transversely rugose, with a deep central longitudinal channel and two oblique ones at the base which unite with the central one and form an enclosed space; the wings hyaline, with their apical margins clouded; the anterior tarsi and apical joints of the intermediate and posterior pairs testaceous. Abdomen elongate, smooth and shining; the basal segment as long as the thorax.

Hab. Sierra Leone.

8. Trypoxylon frontale.

Female. Length 3 lines.—Black: head subquadrate, very closely and finely punctured; the mandibles pale rufo-testaceous; the front produced into an angular prominence between the antennæ, the apex acute; a slightly impressed line runs from the anterior stemma to the angular point. The posterior margin of the prothorax and the tegulæ, the anterior tibiæ in front, and the tarsi, pale testaceous; the mesothorax and scutellum very closely and finely punctured; the wings hyaline and splendidly iridescent; the metathorax transversely striated; at the base is an enclosed space which is obliquely striated, with a deep longitudinal channel, slightly interrupted at the verge of the oblique truncation. Abdomen smooth and shining, covered with a fine cinereous pile.

Hab. Africa. (Coll. F. Smith.)

9. Trypoxylon rufimanum.

Trypoxylon rufimanum, *Spin. Mem. Accad. Torino*, xiii. 59. 42 (1853).

Hab. Brazil (Para).

10. Trypoxylon annulare.

Trypoxylon annulare, *Dahlb. Hym. Europ.* i. 282.

Hab. Brazil.

11. Trypoxylon aurifrons. B.M.

Trypoxylon aurifrons, *Shuck. Foss. Hym.* 117. 2.
Dahlb. Hym. Europ. i. 285.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

12. Trypoxylon fugax. B.M.

Trypoxylon fugax, *Fabr. Syst. Piez.* 182. 4.
Dahlb. Hym. Europ. 281.

Hab. Brazil.

13. Trypoxylon fuscipenne. B.M.

Trypoxylon fuscipennis, *Fabr. Syst. Piez.* 181. 3.
Trypoxylon fuscipenne, *Dahlb. Hym. Europ.* i. 283.

Hab. Brazil.

14. Trypoxylon albitarse. B.M.

Trypoxylon albitarse, *Fabr. Syst. Piez.* 180. 1.
St. Farg. & Serv. Encycl. Meth. x. 750.
Dahlb. Hym. Europ. i. 286.
St. Farg. Hym. iii. 228. 1. t. 27. f. 3.
Trypoxylon politum, *Say, Bost. Journ.* i. 373. 1.

Hab. Brazil (Para); California; United States.

15. Trypoxylon nitidum.

Female. Length 4½ lines.—Black: the face covered with silvery pubescence; the mandibles and palpi rufo-testaceous. Thorax: above shining; the mesothorax rather strongly but not closely punctured; the metathorax obliquely striated at the base, beyond which it is striated transversely, at the sides is a little silvery pubescence; the thorax beneath smooth, shining and punctured; wings hyaline, faintly clouded at their apex; the knees, apex of the femora and basal joint of the tarsi rufo-testaceous. Abdomen: the two basal segments very smooth and shining, the base of the second segment rufo-testaceous; the apical margins of the third, fourth and fifth segments narrowly testaceous.

Hab. Brazil. (Coll. F. Smith.)

16. Trypoxylon ornatum.

Female. Length 4 lines.—Black: the face clothed with golden pubescence, including the emargination of the eyes; the palpi and mandibles pale testaceous, the latter ferruginous at their apex; the cheeks have a thin golden pubescence. The posterior margin of the prothorax, the tubercles, an epaulet over the tegulæ, and a patch on each side of the post-scutellum, covered with golden pubescence; the mesothorax and scutellum shining, with scattered shallow punctures; the metathorax transversely striated; from the insertion of the abdomen a broad deep groove passes about half-way upwards, at its termination is a shallow subtriangular depression; the wings hyaline, their apical margins clouded, the nervures testaceous. Abdomen clavate, the base of the second segment rufo-testaceous.

Hab. Brazil. (Coll. F. Smith.)

This species closely resembles the *T. fugax* of Fabricius, but is at once distinguished by the sculpture of the metathorax; in *fugax* it is smooth, shining and convex.

17. Trypoxylon excavatum. B.M.

Female. Length 5 lines.—Black: the face covered with silvery pubescence; the mandibles rufo-piceous, palest at their base. Thorax: the sides, beneath the metathorax and legs, with a thin cinereous pubescence, at the sides of the metathorax it has a silvery brightness; the mesothorax and scutellum very smooth and shining; at the sides of the post-scutellum a little silvery-white pubescence; the metathorax above with a broad deep excavation which narrows towards the verge of the truncation, and forms a deep channel which runs down to the insertion of the abdomen; the excavation has a few faintly impressed transverse lines in the middle; wings hyaline, with a fuscous cloud occupying the marginal cell as well as the extreme apex of the wings. Abdomen covered with fine cinereous pile, most dense on the basal margins of the segments.

The male closely resembles the female, but has the mandibles paler, and has also the base of the first joint of the anterior and intermediate tarsi pale; the second and third segments of the abdomen are deeply concave beneath, and very smooth and shining.

Hab. Jamaica.

18. Trypoxylon subimpressum. B.M.

Male. Length 4 lines.—Black: the face with a dense silvery

pubescence; the mandibles obscurely rufo-piceous; the cheeks with bright silvery pile; the vertex opake, and having a number of large subimpressed punctures. Thorax: a line of silvery pubescence on the posterior margin of the prothorax, another over the tegulæ; the anterior and posterior margins of the scutellum, and the sides of the metathorax covered with silvery pubescence; a silvery line in the middle of the pectus and also on the margins of the mesothorax beneath, very bright and glittering; a short thin hoary pubescence is scattered over the thorax; the mesothorax very smooth and shining, covered with faintly impressed punctures; the metathorax shining and similarly sculptured to the mesothorax, the truncation transversely striated, and having a deeply impressed longitudinal channel; wings hyaline, a dark fuscous cloud occupying the marginal cell and passing round the apex of the wings. Abdomen smooth and shining, the basal margins of the segments with bands of cinereous pile.

Hab. St. Domingo.

19. TRYPOXYLON CLAVATUM. B.M.

Trypoxylon clavatus, *Say*, *Bost. Journ.* i. 374. 2.

Hab. N. America (United States).

20. TRYPOXYLON CARINATUM.

Trypoxylon carinatus, *Say*, *Bost. Journ.* i. 374. 3.

Hab. N. America (Indiana).

21. TRYPOXYLON COLLINUM. B.M.

Female. Length 5½ lines.—Black: the face covered with golden pubescence; the anterior margin of the clypeus, the scape, and five or six of the basal joints of the flagellum, ferruginous. The prothorax, tegulæ, legs, and two basal segments of the abdomen, ferruginous; the wings fuscous, with a violet iridescence, palest towards their base; the vertex, mesothorax and scutellum strongly punctured; the base of the metathorax with divergent striæ, beyond which it is transversely coarsely rugose; in some examples the metathorax has a ferruginous stain at the base.

Hab. East Florida (St. John's Bluff). (Coll. E. Doubleday, Esq.)

22. TRYPOXYLON FRIGIDUM. B.M.

Female. Length 3½ lines.—Black: the head subopake; on the face between the antennæ is a slightly elevated carina; the face and cheeks covered with silvery pubescence. Thorax sub-

opake, very delicately punctured, and with fine, short, downy, silvery pubescence, most dense on the sides and beneath; the outer margin of the tegulæ pale testaceous; the wings subhyaline, their apical margins dark fuscous, the nervures black; the metathorax obliquely striated above, the striation extending to the verge of the truncation, which has a deep central channel and is obliquely and finely striated; the legs simple, the calcaria pale testaceous. Abdomen shining, with a fine thin sericeous pubescence.

Hab. Hudson's Bay.

Very like *Trypoxylon figulus*, but it is proportionally a shorter insect, the abdomen is more thickened at the base, and the metathorax more evenly striated, and wanting the broad central channel which characterizes *T. figulus*.

Genus 2. NITELA.

Nitela, *Latr. Gen. Crust. et Ins.* iv. 210. 1 (1806).

1. Nitela Spinolæ. Pl. XII. fig. 4.

Nitela Spinolæ, *Latr. Gen. Crust. et Ins.* iv. 77.
Oliv. Encycl. Méth. viii. 204. 1.
Guérin, Dict. Class. xi. 572.
Van d. Lind, Obs. ii. 39. 1.
Dahlb. Hym. Europ. i. 297. 180.
St. Fary. Hym. iii. 210. t. 27. f. 1 ♀.

Hab. France; Italy; Sweden.

Genus 3. OXYBELUS.

Vespa, pt., *Linn. Syst. Nat.* i. 948 (1766).
Apis et Nomada, pt., *Fabr. Mant.* i. (1787).
Crabro, pt., *Fabr. Ent. Syst.* ii. 293 (1793).
Oxybelus, *Latr. Hist. Nat.* xiii. (1805).

1. Oxybelus uniglumis. B.M.

Vespa uniglumis, *Linn. Faun. Suec.* 1681; *Syst. Nat.* i. 951. 18.
Villers, Ent. iii. 271. 14.
Christ. Hym. 246.
Crabro uniglumis, *Fabr. Syst. Ent.* 376. 12; *Ent. Syst.* ii. 300.
Rossi, Faun. Etrus. ii. 92. 884.
Oliv. Encycl. Méth. viii. 595. 34.
Panz. Faun. Germ. 64. 14.

Oxybelus uniglumis, *Latr. Hist. Nat.* xiii. 307. 2.
Fabr. Syst. Piez. 316. 2.
Oliv. Encycl. Méth. viii. 595. 8.
Van d. Lind, Obs. ii. 35. 5.
Shuck. Foss. Hym. 107. 1.
Zett. Ins. Lapp. 446. 1.
Dahlb. Hym. Europ. i. 273. 172.
Guér. Icon. R. Anim. Ins. t. 71. f. 2.
St. Farg. Hym. iii. 221. 13.
Wesm. Hym. Foss. Belg. 157. 1.

Hab. Britain; France; Italy; Germany; Sweden; Lapland.

2. Oxybelus mucronatus. B.M.

Crabro mucronatus, *Fabr. Ent. Syst.* ii. 300. 25.
Oxybelus mucronatus, *Fabr. Syst. Piez.* 318. 5.
Latr. Gen. Crust. et Ins. iv. 79.
Dahlb. Hym. Europ. i. 265. 162.
Wesm. Hym. Foss. Belg. 157. 2.
Oxybelus ferox, *Shuck. Foss. Hym.* 108. 2 ♂.
Oxybelus argentatus, *Curtis, Brit. Ent.* x. 480 ♀.
Shuck. Foss. Hym. 111. 5.

Hab. Britain; France; Italy; Germany; Belgium; Sweden.

3. Oxybelus trispinosus. B.M.

Apis trispinosa, *Fabr. Mant.* i. 303. 60.
Crabro trispinosus, *Fabr. Ent. Syst.* ii. 301. 26.
Oxybelus trispinosus, *Fabr. Syst. Piez.* 318. 7.
Oliv. Encycl. Méth. viii. 597. 15?
Van d. Lind, Obs. ii. 38. 13?
Dahlb. Hym. Europ. i. 270. 169.
St. Farg. Hym. iii. 222. 14.
Wesm. Hym. Foss. Belg. 159. 4.
Oxybelus nigripes, *Oliv. Encycl. Méth.* viii. 596. 12 ♀.
Shuck. Foss. Hym. 109. 3.
St. Farg. Hym. iii. 217. 7.
Van d. Lind, Obs. ii. 37. 10.
Oxybelus mucronatus, *St. Farg. Hym.* iii. 216. 6 ♂?

Hab. Britain; France; Germany; Belgium; Sweden.

4. Oxybelus quatuordecim-notatus. B.M.

Oxybelus 14-notatus, *Jurine, Hym.* 217. t. 11. f. 5.
Latr. Gen. Crust. et Ins. iv. 79.
Oliv. Encycl. Méth. viii. 596. 13.

Oxybelus 14-notatus, *Van d. Lind, Obs.* ii. 37. 11.
St. Farg. Hym. iii. 220. 12.
Oxybelus quatuordecim-guttatus, *Shuck. Foss. Hym.* 112. 6.
Dahlb. Hym. Europ. i. 270. 168.

Hab. France; Italy; Greece.

5. Oxybelus bellicosus. B.M.

Oxybelus bellicosus, *Oliv. Encycl. Méth.* viii. 595. 9.
Shuck. Foss. Hym. 110. 4 ♂.
Van d. Lind, Obs. ii. 36. 7.
Dahlb. Hym. Europ. i. 269. 167.
St. Farg. Hym. iii. 217. 8.
Lucas, Explo. Sc. Algér. iii. 262.

Hab. France; Germany (Silesia).

The type specimen in the Collection of the British Museum is certainly a male: it is described by Shuckard as a female.

6. Oxybelus lineatus. B.M.

Nomada lineata, *Fabr. Mant.* i. 206. 3.
Crabro lineatus, *Fabr. Ent. Syst.* ii. 300. 24.
Panz. Faun. Germ. 73. 18.
Oxybelus lineatus, *Fabr. Syst. Piez.* 317. 3.
Oliv. Encycl. Méth. viii. 594. 3.
Latr. Gen. Crust. et Ins. iv. 79.
Van d. Lind, Obs. ii. 34. 2.
Crabro tridens, *Fabr. Ent. Syst. Supp.* 270. 24–5.
Oxybelus tridens, *Fabr. Syst. Piez.* 318. 5.
Van d. Lind, Obs. ii. 37. 9.
St. Farg. Hym. iii. 223. 15.

Hab. France; Germany.

7. Oxybelus bipunctatus. B.M.

Oxybelus bipunctatus, *Oliv. Encycl. Méth.* viii. 597. 16 ♀.
Van d. Lind, Obs. 38. 14?
St. Farg. Hym. iii. 220. 11.
Wesm. Hym. Foss. Belg. 160. 5.
Oxybelus nigro-æneus, *Shuck. Foss. Hym.* 113. 8 ♂.
Dahlb. Hym. Europ. i. 266. 163.
Oxybelus hæmorrhoidalis, *Dahlb. Hym. Europ.* i. 272. 170?

Hab. France; Germany; Belgium.

8. Oxybelus furcatus.

Oxybelus furcatus, *St. Farg. Hym.* iii. 214. 4 ♀.

Oxybelus furcatus, *Wesm. Hym. Foss. Belg.* 138. 5.
Oxybelus mucronatus, *Van d. Lind, Obs.* ii. 37. 8 ♂.

Hab. France; Germany; Belgium.

9. Oxybelus armiger.

Oxybelus armiger, *Oliv. Encycl. Méth.* viii. 594. 5.
Van d. Lind, Obs. ii. 56. 6.
St. Farg. Hym. ii. 213. 3.

Hab. France.

10. Oxybelus latro.

Oxybelus latro, *Oliv. Encycl. Méth.* viii. 594. 4.
Van d. Lind, Obs. ii. 35. 3.
St. Farg. Hym. iii. 211. 1.

Hab. France; Italy.

11. Oxybelus pugnax.

Oxybelus pugnax, *Oliv. Encycl. Méth.* viii. 595. 6 ♀.
Van d. Lind, Obs. ii. 35. 4.
Wesm. Hym. Foss. Belg. 163. 7 ♂ ♀.

Hab. Geneva.

12. Oxybelus raptor.

Oxybelus raptor, *St. Farg. Hym.* iii. 219. 10 ♀.

Hab. France (Paris).

13. Oxybelus pygmæus.

Oxybelus pygmæus, *Oliv. Encycl. Méth.* viii. 597. 17.

Hab. France.

14. Oxybelus nigricornis. B.M.

Oxybelus nigricornis, *Shuck. Foss. Hym.* 112. 7 ♂ ♀.
Dahlb. Hym. Europ. i. 267. 164.

Hab. Britain?

15. Oxybelus bellus.

Oxybelus bellus, *Dahlb. Hym. Europ.* i. 268. 166.

Hab. Germany.

16. Oxybelus hæmorrhoidalis.

Oxybelus hæmorrhoidalis, *Oliv. Encycl. Méth.* viii. 596. 13.
Van d. Lind, Obs. ii. 38. 12?

Hab. France; Germany.

17. Oxybelus fissus.

Oxybelus fissus, *St. Farg. Hym.* iii. 215. 5.

Hab. Lyons.

18. Oxybelus victor.

Oxybelus victor, *St. Farg. Hym.* iii. 218. 9.

Hab. Paris.

19. Oxybelus variegatus.

Oxybelus variegatus, *Wesm. Hym. Foss. Belg.* 162. 6 ♀.

Hab. Geneva.

20. Oxybelus maculipes.

Female. Length 3 lines.—Black: the scape yellow in front; the flagellum ferruginous, slightly fuscous above; the mandibles ferruginous, their tips black; the face covered with silvery down; the head and thorax strongly punctured; a spot on each side of the collar, the tubercles, a spot on each side of the scutellum, and the squama at the posterior margin of the scutellum, yellow; the latter membranaceous exteriorly; the mucro at the base of the metathorax slightly curved, grooved above and acute at its apex; wings hyaline, nervures testaceous, the tegulæ pale testaceous; the legs ferruginous, the anterior and intermediate femora beneath and the base of the tibiæ yellowish-white. Abdomen strongly punctured; the first and second segments have a large pale yellow macula on each side, those on the second pointed within; the third and fourth segments have a transverse band, attenuated in the middle, that on the third sometimes slightly interrupted; the fifth has a semicircular spot; the apical segment ferruginous.

Hab. Albania. (Coll. W. W. Saunders, Esq.)

21. Oxybelus lancifer.

Oxybelus lancifer, *Oliv. Encycl. Méth.* viii. 594. 2.
Van d. Lind, Obs. ii. 34. 1.

Hab. Spain.

22. Oxybelus hastatus.

Oxybelus hastatus, *Fabr. Syst. Piez.* 317. 4.
Oliv. Encycl. Méth. viii. 594. 1.
Dahlb. Hym. Europ. i. 273. 171.

Hab. Mogadore; Spain.

23. Oxybelus lamellatus.

Oxybelus lamellatus, *Oliv. Encycl. Méth.* viii. 593. 7.

Hab. Egypt.

24. Oxybelus Arabs. B.M.

Oxybelus Arabs, *St. Farg. Hym.* iii. 213. 3.
Lucas, Explo. Sc. Algér. iii. 261. t. 12. f. 6.

Hab. Algeria (Oran).

25. Oxybelus agilis. B.M.

Male. Length 3 lines.—Black: head punctured; the flagellum ferruginous, the mandibles rufo-piceous at their apex. Thorax punctured; a spot on each side of the collar, the tubercles, tegulæ in front, the squama, and the lateral margins of the scutellum narrowly, of a yellowish-white; the scutellum rugose and having a central carina; the mucro at the base of the metathorax concave above and obtuse at the apex; the anterior and intermediate tibiæ as well as the tarsi rufo-fulvous; the anterior and intermediate tibiæ outside, the base of the posterior pair and a stripe within, white; the latter are fusco-ferruginous outside. The abdomen with a subinterrupted yellowish-white fascia on the five basal segments; the apical segment obtuse at the apex, somewhat swollen at the base, the sides margined and coarsely punctured; above, the abdomen is shining and strongly punctured, and the entire insect has a thinly scattered short griseous pubescence, the face being silvery.

Hab. India.

26. Oxybelus tridentatus. B.M.

Male. Length 2½ lines.—Black: the head and thorax thinly sprinkled with short glittering silvery hairs, most dense on the face and cheeks; the apex of the scape and the first joint of the flagellum yellow in front; the flagellum fusco-ferruginous; the anterior margin of the clypeus armed with three stout teeth; the mandibles yellow at their base and ferruginous at their apex. Thorax: the collar, tubercles, tegulæ, the squama, and two

oblique lines on each side of the scutellum, running to the base of the wings, white; the anterior and intermediate tibiæ in front, and the posterior pair at their base, white; the posterior tibiæ have also a white stripe within; the anterior and intermediate tibiæ behind and all the tarsi fulvous; the mucro at the base of the metathorax slightly curved, linear, with the apex obtuse. Abdomen: the basal segment with a broad, the second and sometimes the third, with a narrow slightly interrupted white fascia; the apical segment coarsely punctured and truncate at the apex.

Hab. India.

Some examples differ in having the pale markings more or less yellow.

27. Oxybelus ruficornis. B.M.

Female. Length 2½ lines.—Black: head closely punctured; the face and cheeks with bright silvery pubescence; a thin griseous pubescence on the vertex; the antennæ ferruginous, the scape white in front; the mandibles white, their apex ferruginous. Thorax punctured, thinly covered with griseous pubescence; the collar, tubercles, tegulæ and extreme base of the wings, an ovate spot on each side of the scutellum, the squama, the tip of the mucro at the base of the metathorax, and two narrow lines running from the base of the wings to the scutellum, yellowish-white; the wings hyaline, the nervures pale testaceous; the coxæ and femora ferruginous, the tips of the latter, the tibiæ and tarsi, yellowish-white; the intermediate and posterior tibiæ with a ferruginous stripe outside. Abdomen finely punctured and shining; the basal segment with a large subovate macula on each side, the second segment with a broad fascia, emarginate in the middle anteriorly and narrowed towards the lateral margins, and a narrower continuous fascia on the apical margins of the two following segments, yellowish-white; the apical segment obscurely ferruginous.

Hab. India.

28. Oxybelus sabulosus. B.M.

Female. Length 2½ lines.—Black: head punctured, the face and cheeks with a silvery pubescence; the flagellum fulvous beneath towards the apex; the mandibles yellow at their base and ferruginous at their apex. Thorax strongly punctured; the collar, tubercles, and squama, yellow; the scutellum with a central carina; the mucro short, broad, concave above and notched

at the apex; the anterior femora outside and the tibiæ yellow; the intermediate femora at their apex beneath, the tibiæ at their base and also the base of the posterior pair, yellow; the intermediate and posterior tibiæ at their apex and also the tarsi ferruginous; the wings subhyaline, the tegulæ pale rufo-testaceous. Abdomen: the four basal segments have a subovate yellow macula on each side, the apex ferruginous.

Hab. India.

29. Oxybelus marginatus. B.M.

Female. Length 3 lines.—Black: head and thorax closely but not coarsely punctured; thinly sprinkled with short yellow pubescence; the face and cheeks covered with silvery pubescence; the antennæ fulvous towards their apex beneath; the mandibles obscurely ferruginous in the middle. A narrow line on the collar, the tubercles, a stripe on the anterior and intermediate femora beneath, and a line on the anterior tibiæ outside, yellow; the scutellum and post-scutellum with a minute yellow dot on each side; the squama pale testaceous; the mucro at the base of the metathorax broad, grooved above, the sides parallel and the apex deeply notched. Abdomen finely punctured, the apical margins of the segments with a narrow pale yellow fascia.

The male closely resembles the female, but has the anterior tarsi fulvous, the intermediate and posterior pair obscurely so, and the posterior tibiæ are yellow behind; the thoracic mucro is more produced and notched, as in the other sex.

Hab. Brazil (Santarem and Villa Nova). (Coll. H. W. Bates.)

30. Oxybelus aurifrons.

Female. Length 3 lines.—Black: the face and cheeks covered with golden pubescence; the flagellum ferruginous, more or less fuscous towards the base above. The collar, tubercles, a spot on each side of the scutellum, the anterior tibiæ in front, and a spot at the apex of the intermediate femora behind, black; the claw-joint of the tarsi pale rufo-testaceous, the pulvillus black; the scutellum and post-scutellum with a central longitudinal carina; the squama pale testaceous, the mucro dilated at the apex, hollowed above, deeply emarginate at the tip. Abdomen shining, finely punctured; the first and three following segments with a narrow, waved, transverse yellow stripe, which is slightly interrupted in the middle, and placed a little before their apical margins.

Hab. Brazil. (Coll. F. Smith.)

31. Oxybelus cordatus.

Oxybelus cordatus, *Spin. Gay's Chili*, vi. 364. 1.

Hab. Chili.

32. Oxybelus marginellus.

Oxybelus marginellus, *Spin. Gay's Chili*, vi. 365. 2.

Hab. Chili.

33. Oxybelus impatiens. B.M.

Female. Length 3 lines.—Black: the flagellum fulvous beneath; the face has a silvery pubescence, on the vertex and disk of the thorax it is yellow, short, and sparing; a minute spot on the tubercles, another on the tegulæ, and a minute spot at the base of the intermediate and posterior tibiæ, yellow; the anterior tibiæ yellowish-white in front, the claw-joint of the tarsi fulvous; the squama pale testaceous, the mucro linear, grooved above and rounded at the apex. Abdomen: each segment has a narrow pale yellow line on each side, the apical segment immaculate.

Hab. California.

34. Oxybelus lætus.

Oxybelus lætus, *Say*, *Bost. Journ.* i. 375. 3.

Hab. North America (Indiana).

35. Oxybelus emarginatus. B.M.

Oxybelus emarginatus, *Say*, *Bost. Journ.* i. 375. 1.

Hab. North America (Indiana).

36. Oxybelus 4-notatus.

Oxybelus 4-notatus, *Say*, *Narr. Exped. St. Peter's River, Append.* p. 71; *Bost. Journ.* i. 375. 2.

Hab. Pennsylvania.

Genus 4. CRABRO.

Sphex, pt., *Linn. Faun. Suec.* 411 (1761).
Vespa, pt., *Linn. Faun. Suec.* 415 (1761).
Crabro, pt., *Fabr. Ent. Syst.* ii. 293 (1793).
Pemphredon, pt., *Fabr. Syst. Piez.* 314 (1804).
Rhopalum, *Kirby*, *Steph. Syst. Cat.* 366 (1829).

Solenius, Blepharipus, Ceratocolus, Thyreopus, Crossocerus, Lindenius, Corynopus, Physoscelis, Dasyproctus, *St. Farg. Ann. Soc. Ent. Fr.* iii. (1834).
Entomognathus, *Dahlb. Hym. Europ.* i. 295 (1845).
Ectemnius, *Dahlb. Hym. Europ.* i. 389 (1845).
Brachymerus, *Dahlb. Hym. Europ. Synop.* 519 (1845).
Megapodium, *Dahlb. Hym. Europ.* i. 295.
Podagritus, *Spin., Gay's Faun. Chil.* vi. (1854).

Div. 1. *Abdomen petiolated.*

1. Crabro clavipes. B.M.

Sphex clavipes, *Linn. Faun. Suec.* 411. 1694 ♂; *Syst. Nat.* i. 924. 8.
Crabro crassipes, *Fabr. Ent. Syst. Supp.* 270. 26–7.
Pemphredon crassipes, *Fabr. Syst. Piez.* 315. 3.
Crabro rufiventris, *Panz. Faun. Germ.* 72. 12.
Van d. Lind, Obs. ii. 72. 34.
Shuck. Foss. Hym. 178. 35.
Physoscelis rufiventris, *St. Farg. Ann. Soc. Ent. Fr.* iii. 805. 1 ♂ ♀ (1834); *Hym.* iii. 207. 1.
Rhopalum clavipes, *Dahlb. Hym. Europ.* i. 291. 178.
Wesm. Hym. Foss. Belg. 126. 1.

Hab. Britain; France; Germany; Sweden; Norway.

2. Crabro tibialis. B.M.

Crabro tibialis, *Fabr. Ent. Syst. Supp.* 271. 27–8.
Panz. Faun. Germ. 83. 14.
Van d. Lind, Obs. ii. 73. 35.
Shuck. Foss, Hym. 177. 34.
Pemphredon tibialis, *Fabr. Syst. Piez.* 315. 4.
Corynopus tibialis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 803. 1 (1834); *Hym.* iii. 205. 1.
Rhopalum tibiale, *Dahlb. Hym. Europ.* i. 288. 177.
Wesm. Hym. Foss. Belg. 127. 3.

Hab. Britain; France; Germany; Denmark; Norway; Finland; Sweden.

3. Crabro gracilis.

Rhopalum gracile, *Wesm. Hym. Foss. Belg.* 126. 2.

Hab. Geneva.

4. Crabro flavo-pictus. B.M.

Female. Length 5 lines.—Black and shining: the clypeus

covered with silvery pubescence; the mandibles and scape yellow, the tips of the former ferruginous; the vertex with an impressed oblique channel running from each of the posterior ocelli; the cheeks covered with silvery down. Thorax delicately punctured on the disk; the collar, tubercles, two minute spots on the scutellum and the post-scutellum, yellow; an enclosed shining subcordate space at the base of the metathorax, which has a longitudinal impressed line from the base to the apex; wings hyaline, faintly coloured towards their apical margins, the nervures black; the legs have the tips of the coxæ, trochanters and femora, the anterior and intermediate tibiæ and the base and apex of the posterior pair, yellow; the anterior and intermediate tibiæ have a dark stain behind; the tarsi of a reddish-yellow, with the apical joint rufo-fuscous. Abdomen: the basal petiolated segment yellow, with a longitudinal dark stripe; the second and two following segments have on each side an irregular subovate macula, the apical margin of the fifth yellow, the sixth of a reddish-yellow; beneath, the second and three following segments have an obscure testaceous-yellow waved line at their apical margins.

Hab. Northern India.

5. Crabro bipunctatus. B.M.

Dasyproctus bipunctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 802. 1 (1834); *Hym.* iii. 203. 1.
Dahlb. Hym. Europ. i. 294. 61.
Megapodium Westermanni, *Dahlb. Hym. Europ.* i. 295. 1 (var.?).

Hab. Cape of Good Hope.

Having several specimens of this insect for examination, it is found to vary in colouring as follows:—

Var. *β*. The scape, collar, tubercles, a spot on the scutellum, two on the second segment of the abdomen, and a transverse line on the fifth segment, pale yellow; the posterior tibiæ black. This is *C. bipunctatus*.

Var. *γ*. The scape, collar, tubercles, two spots on the second segment of the abdomen, and a transverse line on the fifth, pale yellow; the posterior tibiæ ferruginous; the scutellum immaculate. This appears to be the *Megapodium Westermanni* f Dahlbom.

6. Crabro Westermanni.

Crabro Westermanni, *Dahlb. Hym. Europ.* i. 295.

Hab. Cape of Good Hope.

7. Crabro similLimus.

Female. Length 4–4½ lines.—Black: the scape yellow, the clypeus covered with silvery pubescence. Thorax: a slightly interrupted yellow line on the collar; the tubercles, tegulæ, tips of the femora, the tibiæ and tarsi, ferruginous; the metathorax rugose, the disk of the thorax finely roughened; the wings fuscohyaline. Abdomen: the second segment with a transverse spot on each side in the middle, a similar spot on the fourth segment, and a transverse line on the fifth segment, yellow.

The male resembles the female, but is remarkable for having the intermediate and posterior tibiæ and femora fringed beneath with long white pubescence.

Hab. Cape of Good Hope.

This species is closely allied to *C. Westermanni*, but the uniformity of colouring in a number of specimens must be regarded as of specific value.

8. Crabro frater.

Megapodium frater, *Dahlb. Hym. Europ.* i. 295. 2.

Hab. Cape of Good Hope.

9. Crabro Gayi. B.M.

Podagritus Gayi, *Spin. Gay's Chili*, vi. 357. 1, *Atlas, Zool.* t. 2, *Hym.* f. 6. 6 *a*, *b*, *c* ♀.

Hab. Chili.

The genus *Podagritus* does not differ from the *Rhopalum* of Kirby, the latter only varying from the type of the genus *Crabro* of Fabricius in having the abdomen petiolated; but in this extensive and eccentric genus every intervening form may be found: the neuration of the wings is the same in the three above-named genera.

10. Crabro pallipes.

Physoscelis pallipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 806. 2 (1834); *Hym.* iii. 209. 2.

Rhopalum pallipes, *Dahlb. Hym. Europ.* i. 294.

Hab. South America (Montevideo).

11. Crabro brevinodus.

Physoscelis brevinodus, *Spin. Gay's Chili*, vi. 361. 2, *Atlas, Hym.* t. 2. f. 8 ♀.

Hab. Chili.

12. Crabro longinodus.

Physoscelus longinodus, *Spin. Gay's Chili*, vi. 359. 1, *Atlas, Hym.* t. 2. f. 7 ♂.

Hab. Chili.

13. Crabro crassinodus.

Physoscelus crassinodus, *Spin. Gay's Chili*, vi. 362. 3, *Atlas, Hym.* t. 2. f. 9 ♂.

Hab. Chili.

14. Crabro tricolor. B.M.

Male. Length 5 lines.—Black: the scape yellow; the clypeus covered with silvery pubescence; the second joint of the flagellum slightly produced at its apex beneath; an oblique depression on the side of each of the posterior ocelli. Thorax slightly shining, the sides with a fine short glittering pubescence; the anterior and intermediate legs yellow, with the extreme base of the femora black; the tips of the posterior femora yellow; the tibiæ and tarsi wanting, probably yellow; the wings slightly coloured, beautifully iridescent, their extreme base yellow. Abdomen: the apex of the first segment, the second segment, and base of the third, red; the apical segment punctured and sprinkled with pale hairs.

Hab. Tasmania.

Div. 2. *Abdomen sessile.*

* *Anterior tibiæ of the males dilated into abroad flattened plate.*

15. Crabro cribrarius. B.M.

Vespa cribraria, *Linn. Faun. Suec.* 1675 ♂.
Sphex cribraria, *Linn. Syst. Nat.* i. 945. 23.
Sulz. Gesch. Ins. t. 27. f. 6 ♂.
Schrank, Ins. Austr. 384. 779.
Christ. Hym. 281. t. 27. f. 1.
Guêpe ichneumon, *De Geer, Ins.* ii. 810. t. 28. f. 1–5 ♂.
Sphex patellaria, *Schreb. Naturf.* 20. 95. 1.
Crabro cribrarius, *Fabr. Ent. Syst.* ii. 297. 14; *Syst. Piez.* 311. 16.
Panz. Faun. Germ. 15. 18 ♂. 15. 19 ♀.
Latr. Hist. Nat. xiii. 323. 1.
Duméril, Consid. gén. t. 31. f. 3.
Spin. Ins. Lig. ii. 178. 13.
Van d. Lind, Obs. ii. 40. 1.
Shuck. Foss. Hym. 126. 1.

Crabro cribrarius, *Zett. Ins. Lapp.* 444. 7.
Dahlb. Hym. Europ. i. 353. 231.
Wesm. Hym. Foss. Belg. 146. 25.
Thyreopus cribrarius, *St. Farg. Ann. Soc. Ent. Fr.* iii. 752. 1; *Hym.* iii. 158. 1.

Hab. Britain, and throughout Europe.

16. Crabro patellatus. B.M.

Crabro patellatus, *Panz. Faun. Germ.* 46. 4 ♂.
Van d. Lind, Obs. ii. 43. 3 ♂ ♀.
Shuck. Foss. Hym. 128. 2.
Dahlb. Hym. Europ. i. 356. 232.
Wesm. Hym. Foss. Belg. 145. 24.
Crabro peltatus, *Fabr. Syst. Piez.* 311. 15.
Crabro clypeatus, *Fabr. Ent. Syst.* ii. 297. 15.
Crabro dentipes, *Panz. Faun. Germ.* 46. 9 ♀.
Thyreopus patellatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 756. 3; *Hym.* iii. 161. 3.
Hab. Britain; Germany; France; Belgium; Sweden.

17. Crabro interruptus.

Thyreopus interruptus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 755. 2 ♂; *Hym.* iii. 160. 2.
Crabro interruptus, *Dahlb. Hym. Europ.* i. 359. 233.

Hab. France.

This in all probability is the male of *C. chrysarginus*.

18. Crabro cetratus. B.M.

Crabro cetratus, *Shuck. Foss. Hym.* 131. 4.
Dahlb. Hym. Europ. i. 337. 221.
Wesm. Hym. Foss. Belg. 133. 10.
Crabro dilatatus, *Herr. Schäff. Faun. Germ.* 181. 54.

Hab. Britain; Germany; Sweden; Norway; Finland.

19. Crabro pterotus. B.M.

Crabro pterotus, *Panz. Faun. Germ.* 83. 16 ♂. 83. 17 ♀.
Fabr. Syst. Piez. 311. 17.
Van d. Lind, Obs. ii. 43. 4.
Dahlb. Hym. Europ. i. 360. 234.
Wesm. Hym. Foss. Belg. 145. 23.
Thyreopus pterotus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 760. 5 ♂; *Hym.* iii. 165. 5.

Ceratocolus reticulatus, *St. Farg. Ann. Soc. Ent. Fr.* 747. 6 ♀? *Hym.* iii. 152. 6.

Hab. France; Germany; Austria; Sweden.

20. Crabro scutatus. B.M.

Crabro scutatus, *Fabr. Mant.* i. 296. 15 ♂; *Ent. Syst.* ii. 298. 16.
Panz. Faun. Germ. 15. 22.
Oliv. Encycl. Méth. vi. 515. 17.
Van d. Lind, Obs. ii. 44. 5.
Shuck. Foss. Hym. 129. 3 ♂ ♀.
Dahlb. Hym. Europ. i. 329. 216.
Wesm. Hym. Foss. Belg. 135. 13.
Vespa scutata, *Gmelin, Syst. Nat.* i. pt. 5. 2763. 116 ♂.
Sphex palmaria, *Schreb. Naturf.* xx. 100. 6. t. 2. f. 9 ♂.
Crossocerus scutatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 764. 1 ♂ (1834); *Hym.* iii. 168. 1.

Hab. Britain; France; Germany; Belgium.

21. Crabro latipes. B.M.

Male. Length 4 lines.—Black: the head a little wider than the thorax, much narrowed behind the eyes; the stemmata placed in a curve backwards on the vertex; the clypeus yellow, with a black carina in the middle; the mandibles with a yellow stripe outside; the scape white, with a black line behind, broad and narrowed at the base; the flagellum subfusiform, concave beneath, and serrated on the exterior. Thorax: the metathorax rugose; the wings fulvo-hyaline and iridescent, the nervures rufo-testaceous; the anterior legs have the trochanters a little dilated and flattened beneath, and of a very pale yellow colour; the femora pale yellow, broadly dilated, widest at their apex, at the base furnished with two incurved acute teeth; the tibiæ dilated into large oblong concavo-convex plates, the lower posterior angle furnished with an acute spine, the anterior margin pale yellow, behind which it is entirely of a dusky brown, with two or three longitudinal paler lines, at the base having a few narrow whitish streaks; the intermediate femora with a yellow stripe behind; the tibiæ yellow, with a black stain at the base beneath; the tarsi yellow; the posterior legs have the tibiæ and basal joint of the tarsi yellow outside. Abdomen: a pale yellow subinterrupted fascia on the first and three following segments, that on the fifth continuous; the sixth segment with an oblong spot on each side.

Hab. Nova Scotia. (Coll. Lieut. Redman.)

** *Anterior tarsi with one or more of the basal joints dilated.*

22. Crabro clypeatus. B.M.

Sphex clypeata, *Linn. Syst. Nat.* i. 945. 24 ♂.
Schrank, Ins. Austr. 386. 780.
Christ. Hym. 285. t. 27. f. 5.
Crabro clypeatus, *Fabr. Syst. Ent.* 375. 7 ♂; *Ent. Syst.* ii. 297. 15; *Syst. Piez.* 312. 18.
Rossi, Faun. Etrus. ii. 90. 880.
Oliv. Encycl. Méth. vi. 515. 16.
Latr. Hist. Nat. xiii. 323. 2; *Nouv. Dict.* 2nd ed. 8. 358.
Crabro vexillatus, *Panz. Faun. Germ.* 46. 5 ♂.
Illig. Faun. Etrus. ii. 149.
Van d. Lind, Obs. ii. 45. 6 ♂ (nec ♀).
Shuck. Foss. Hym. 132. 5 ♂.
Dahlb. Hym. Europ. i. 375. 212 ♂ ♀.
Crabro vexillatus, *Wesm. Hym. Foss. Belg.* 147. 27.
Crabro lapidarius, *Fabr. Syst. Piez.* 309. 6 ♀.
Van d. Lind, Obs. ii. 55. 14.
Smith, Cat. Brit. Hym. 120.
Thyreopus clypeatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 758. 4 ♂.
Solenius lapidarius, *St. Farg. Ann. Soc. Ent. Fr.* iii. 721. 8 ♀; *Hym.* iii. 117. 1.

Hab. Britain; France; Germany; Italy; Sweden; Norway; Finland.

A comparison of specimens with the type in the Linnæan Cabinet convinces me of the identity of the British insect with the Swedish one, which has the name *clypeata* attached to it in the handwriting of Linnæus.

23. Crabro palmipes. B.M.

Sphex palmipes, *Linn. Syst. Nat.* i. 944. 20 ♂.
Gmelin, i. 2730. 20.
Vill. Entom. iii. 231. 31.
Crabro palmipes, *Van d. Lind, Obs.* ii. 47. 8.
St. Farg. Ann. Soc. Ent. Fr. iii. 765. 2; *Hym.* iii. 169. 2.
Dahlb. Hym. Europ. i. 332. 217.
Wesm. Hym. Foss. Belg. 135. 14.
Crabro tarsatus, *Shuck. Foss. Hym.* 163. 23.
Crabro pusillus, *Herr. Schäff. Faun. Germ.* 181. 55. t. 24, & t. 23.

Hab. Britain; France; Germany; Belgium; Sweden.

24. Crabro Laportæi.

Crabro Laportæi, *St. Farg. Ann. Soc. Ent. Fr.* iii. 712. 14; *Hym.* iii. 115. 14.

Hab. France.

25. Crabro subterraneus.

Crabro subterraneus, *Fabr. Ent. Syst.* ii. 295. 7; *Syst. Piez.* 309. 8.
Rossi, Faun. Etrus. Illig. ed. ii. 151. 883.
Van d. Lind, Obs. ii. 46. 7.
Dahlb. Hym. Europ. i. 370. 240; *Exam. Crabr.* 71. 20; *Dispos. Meth. Spec. Hym.* 15. 109.
Wesm. Hym. Foss. Belg. 146. 26.
Ceratocolus philanthoides, *St. Farg. Ann. Soc. Ent. Fr.* iii. 742. 3; *Hym.* iii. 147. 3.

Hab. Britain; Italy; France; Germany; Belgium; Finland.

**** Joints of the antennæ more or less emarginate, sometimes produced beneath, forming teeth; the legs simple.*

26. Crabro alatus.

Ceratocolus alatus, *Panz. Faun. Germ.* 46. 6.
St. Farg. Ann. Soc. Ent. Fr. iii. 750. 10 ♂; *Hym.* iii. 156. 10.
Dahlb. Hym. Europ. i. 372. 241.

Hab. France; Germany.

27. Crabro auratus.

Solenius dives, *St. Farg. Ann. Soc. Ent. Fr.* iii. 716. 4; *Hym.* iii. 122. 5.
Dahlb. Hym. Europ. i. 387. 262.

Hab. France.

28. Crabro cephalotes. B.M.

Crabro cephalotes, *Fabr. Syst. Piez.* 308. 5.
Panz. Faun. Germ. 62. 16.
Van d. Lind, Obs. ii. 55. 13.
Shuck. Foss. Hym. 135. 7.
Dahlb. Hym. Europ. i. 408. 273.
St. Farg. Ann. Soc. Ent. Fr. iii. 697. 1; *Hym.* iii. 100. 1.
Wesm. Hym. Foss. Belg. 151. 33.

Crabro sinuatus, *Fabr. Syst. Piez.* 310. 12.
Crabro vespiformis, *Van d. Lind, Obs.* ii. 54. 12.

Hab. Britain; France; Germany; Belgium; Norway; Sweden; Denmark.

29. Crabro chrysostomus. B.M.

Crabro fossorius, *Panz. Faun. Germ.* 72. 11? (nec *Linn.*) ♀.
Van d. Lind, Obs. ii. 51. 10 ♂ ♀ (nec *Linn.*).
Crabro lapidarius, *Panz. Faun. Germ.* 90. 12 (nec *Fabr.*) ♂.
Dahlb. Hym. Europ. 405. 272.
Wesm. Hym. Foss. Belg. 151. 32.
Crabro chrysostomus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 704. 7 ♀; *Hym.* iii. 107. 7.
Herr. Schäff. Faun. Germ. 181. 22. t. 13 ♂.
Crabro xylurgus, *Shuck. Foss. Hym.* 139. 9.

Hab. Britain; France; Germany; Belgium; Austria; Sicily; Norway; Sweden; Lapland; Finland.

30. Crabro comptus.

Crabro comptus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 705. 8; *Hym.* iii. 108. 8.
Dahlb. Hym. Europ. i. 385. 254.

Hab. France.

Both Dahlbom and Wesmael regard this as the male of *C. chrysostomus*; but, as St. Fargeau does not mention the deep emargination of the third and fourth joints of the flagellum, the synonym appears doubtful.

31. Crabro dives.

Crabro dives, *St. Farg. Ann. Soc. Ent. Fr.* iii. 716. 4 ♂ ♀; *Hym.* iii. 122. 5.
Herr. Schäff. Faun. Germ. 181. 26. t. 17, 18.
Dahlb. Hym. Europ. i. 396. 269.
Wesm. Hym. Foss. Belg. 150. 30.
Crabro alatus, *Dahlb. Exam. Crabr.* 85. 23. t. 5 ♂; *Dispos.* 15. 111.

Hab. France; Asia Minor; Germany; Belgium; Sweden.

32. Crabro fumipennis.

Solenius fuscipennis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 714. 1; *Hym.* iii. 120. 2. (See Spec. 144.)
Dahlb. Hym. Europ. i. 386. 259.

Hab. France.

33. Crabro Lindenius. B.M.

Crabro Lindenius, *Shuck. Foss. Hym.* 143. 10.
Crabro interruptus, *Dahlb. Hym. Europ.* i. 418. 275.
Crabro striatus, *Wesm. Hym. Foss. Belg.* 156. 35.
Dahlb. Hym. Europ. i. 321. 204.

Hab. France; Belgium; Austria; Sweden; Lapland.

The synonymy of this species is apparently very much confused. Dahlbom considers it to be identical with the *Crabro striatus* of St. Fargeau: that it cannot be so is proved by the position of the stemmata, in a curve; in the genus *Crabro* of St. Fargeau they are in a triangle. Since the remarkable striation of the mesothorax, transversely in front and longitudinally behind, is not mentioned in the descriptions of St. Fargeau's *Crabro*, *Ceratocolus*, or *Crossocerus striatus*, it is impossible to adopt either of the species as identical with *C. Lindenius*.

34. Crabro fasciatus.

Ceratocolus fasciatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 746. 5 ♂; *Hym.* iii. 151. 5.
Dahlb. Hym. Europ. i. 382. 247.

Hab. France.

35. Crabro fossorius.

Sphex fossoria, *Linn. Faun. Suec.* no. 1662; *Syst. Nat.* i. 946. 32. *Vill. Ent.* iii. 236. 39.
Crabro fossorius, *Dahlb. Hym. Europ.* i. 422. 276.
Zett. Ins. Lapp. 442. 1.
Solenius fossorius, *St. Farg. Ann. Soc. Ent. Fr.* iii. 725. 10; *Hym.* iii. 130. 10?

Hab. France; Austria; Germany; Sweden; Finland; Lapland.

36. Crabro grandis.

Solenius grandis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 718. 5; *Hym.* iii. 124. 6 ♀ (var. *C. fossorius*?).

Hab. France.

37. Crabro larvatus. B.M.

Crabro larvatus, *Wesm. Hym. Foss. Belg.* 148. 29.

Hab. Britain; Belgium.

38. Crabro impressus.

Ceratocolus punctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 749. 9 ♂ ♀; *Hym.* iii. 154. 9.
Dahlb. Hym. Europ. i. 388. 263.

Hab. Vienna.

39. Crabro lituratus.

Crabro lituratus, *Panz. Faun. Germ.* 90. 13 ♀.
St. Farg. Ann. Soc. Ent. Fr. iii. 702. 5; *Hym.* iii. 105. 5.

Hab. Britain; France.

40. Crabro maurus.

Ceratocolus maurus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 153. 7 ♀; *Hym.* iii. 153. 7.
Dahlb. Hym. Europ. i. 382. 248.

Hab. Vienna.

41. Crabro octavo-notatus.

Solenius octavo-notatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 719. 6; *Hym.* iii. 125. 7.
Dahlb. Hym. Europ. i. 388. 263.

Hab. France.

42. Crabro ornatus.

Crabro ornatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 709. 10 ♀; *Hym.* iii. 112. 10.
Dahlb. Hym. Europ. i. 321. 203.

Hab. France.

43. Crabro philanthoides.

Crabro philanthoides, *Panz. Faun. Germ.* 83. 15.
Fabr. Syst. Piez. 309. 11.

Hab. Germany.

44. Crabro petiolatus.

Solenius petiolatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 726. 11; *Hym.* iii. 131. 11.
Dahlb. Hym. Europ. i. 388. 265.

Hab. France.

45. Crabro punctatus.

Solenius punctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 710. 7 ♂; *Hym.* iii. 126. 8.
Dahlb. Hym. Europ. i. 383. 250.

Hab. France.

46. Crabro reticulatus.

Ceratocolus reticulatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 747. 6 ♂; *Hym.* iii. 152. 6.
Crabro pterotus, *Van d. Lind, Obs.* ii. 43. 4.
Dahlb. Hym. Europ. i. 360. 234.

Hab. France.

47. Crabro sexcinctus. B.M.

Crabro sexcinctus, *Fabr. Ent. Syst.* ii. 295. 9?
Panz. Faun. Germ. 64. 13?
Van d. Lind, Obs. ii. 55. 13 ♂ (nec ♀).
Herr. Schäff. Faun. Germ. 181. 18.
Shuck. Foss. Hym. 137. 8 ♂.
Wesm. Hym. Foss. Belg. 154. 34.

Hab. Britain; Germany; Belgium.

48. Crabro vagus.

Sphex vaga, *Linn. Faun. Suec.* no. 1661; *Syst. Nat.* i. 946. 36.
Vill. Ent. iii. 238. 44.
Schæff. Icon. Ins. Ratisb. t. 94. f. 4, 5, & t. 127. f. 6.
Crabro vagus, *Fabr. Syst. Ent.* 375. 8; *Spec. Ins.* i. 471. 10; *Mant.* i. 296. 16; *Ent. Syst.* ii. 298. 17; *Syst. Piez.* 313. 22.
Panz. Faun. Germ. 46. 10.
Rossi, Faun. Etrus. ii. 91. 881.
Oliv. Encycl. Méth. vi. 515. 18.
Schrank, Faun. Boic. ii. 338. 2188.
Latr. Hist. Nat. xiii. 324. 4.
Van d. Lind, Obs. ii. 57. 16.
Shuck. Foss. Hym. 145. 11.
Zett. Ins. Lapp. 442. 2.
Dahlb. Hym. Europ. i. 392. 268.
Wesm. Hym. Foss. Belg. 147. 28.
Solenius vagus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 722. 9; *Hym.* iii. 147. 28.

Hab. Britain, and throughout Europe.

49. Crabro vespiformis. B.M.

Crabro vespiformis, *Panz. Faun. Germ.* 53. 14?
St. Farg. Ann. Soc. Ent. Fr. iii. 701. 4; *Hym.* iii. 104. 4.

Hab. France.

50. Crabro Ziegleri.

Ceratocolus punctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 748. 8 ♀; *Hym.* iii. 154. 8.
Dahlb. Hym. Europ. i. 383. 249.

Hab. Vienna.

51. Crabro zonatus.

Crabro zonatus, *Panz. Faun. Germ.* 47. 7 ♂ (var. *C. sexcinctus*?).
St. Farg. Ann. Soc. Ent. Fr. iii. 700. 3; *Hym.* iii. 103. 3.

Hab. Paris; Germany.

**** *Joints of the antennæ simple; the legs simple. The opposite sex of many of the species not known.*

52. Crabro anxius. B.M.

Crabro exiguus, *Shuck. Foss. Hym.* 174. 32 (nec *Van d. Lind*).
Dahlb. Hym. Europ. i. 326. 214.
Crabro anxius, *Wesm. Hym. Foss. Belg.* 137. 16 ♂ ♀.

Hab. Britain; Belgium; Sweden.

53. Crabro albilabris. B.M.

Crabro albilabris, *Fabr. Ent. Syst.* ii. 302. 31.
Van d. Lind, Obs. ii. 55. 28 ♂ ♀.
Shuck. Foss. Hym. 171. 30.
Zett. Ins. Lapp. 444. 9.
Crabro leucostoma, *Panz. Faun. Germ.* 15. 24; *Krit. Revis.* ii. 185.
Pemphredon albilabris, *Fabr. Syst. Piez.* 316. 8.
Lindenius albilabris, *St. Farg. Ann. Soc. Ent. Fr.* iii. 795. 4; *Hym.* iii. 197. 4.
Dahlb. Hym. Europ. i. 300. 182.
Wesm. Hym. Foss. Belg. 124. 1.
Crabro canescens, *Dahlb. Exam. Crabr. Scand.* 23. 2. t. 1 ♀.

Hab. Britain; France; Italy; Germany; Belgium; Saxony; Denmark; Sweden; Norway; Lapland.

The species included in the genus *Lindenius* of St. Fargeau only differ from the rest of the genus *Crabro* in having the ocelli

in curve, and the mandibles not notched at the base; but the latter character is common to many species of other divisions of the genus: an examination of a large number of species from other countries shows that the former character is evanescent; the ocelli are disposed in every form between an angle and a slight curve.

54. Crabro bimaculatus. B.M.

Crossocerus bimaculatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 788. 25 ♂; *Hym.* iii. 191. 25.
Crabro geniculatus, *Shuck. Foss. Hym.* 169. 28.
Crabro bimaculatus, *Dahlb. Hym. Europ.* i. 310. 190.

Hab. Britain; France; Germany; Austria.

55. Crabro brevis. B.M.

Crabro brevis, *Van d. Lind, Obs.* ii. 70. 32 ♂ ♀.
Shuck. Foss. Hym. 175. 33.
Lindenius brevis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 800. 10; *Hym.* 202. 10.
Entomognathus brevis. *Dahlb. Hym. Europ.* i. 295. 179.
Wesm. Hym. Foss. Belg. 124. 1.

Hab. Britain; France (Paris); Germany; Italy; Belgium; Austria; Sweden.

This species only differs from the majority of the genus in being of a shorter and more robust form, and in having a deep notch, or rather an obtuse tooth, at the base of the mandibles; these differences cannot be regarded as of more than specific value.

56. Crabro capitosus. B.M.

Crabro capitosus, *Shuck. Foss. Hym.* 159. 20 ♀.
Dahlb. Hym. Europ. i. 317. 198 ♂ ♀.
Wesm. Hym. Foss. Belg. 129. 3.
Crabro lævipes, *Herr. Schäff. Faun. Germ.* 179. 22. p. 43.

Hab. Britain; Germany; Sweden.

57. Crabro dimidiatus. B.M.

Crabro dimidiatus, *Fabr. Ent. Syst.* ii. 298. 19 ♀; *Syst. Piez.* 313. 24.
Van d. Lind, Obs. ii. 58. 20 ♂ ♀.
Shuck. Foss. Hym. 151. 14.
Dahlb. Hym. Europ. i. 345. 228.

Crabro serripes, *Panz. Faun. Germ.* 46. 8.
Herr. Schäff. Faun. Germ. 179. 20.
Wesm. Hym. Foss. Belg. 128. 1.
Blepharipus pauperatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 733. 5; *Hym.* iii. 138. 5.

Hab. Britain; France; Germany; Norway; Sweden.

58. Crabro diversipes. B.M.

Crabro pubescens, *Shuck. Foss. Hym.* 165. 25 ♂.
Dahlb. Hym. Europ. i. 311. 191.
Crabro diversipes, *Herr. Schäff. Faun. Germ.* 181. 49 ♂ ♀.
Wesm. Hym. Foss. Belg. 134. 12.

Hab. Britain; Belgium.

59. Crabro elongatus.

Crossocerus elongatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 790. 27 ♂ ♀; *Hym.* iii. 193. 27.

Hab. Belgium.

60. Crabro exiguus. B.M.

Crabro exiguus, *Van d. Lind, Obs.* ii. 72. 33 ♀.
Shuck. Foss. Hym. 174. 32 ♀, not the ♂.
Wesm. Hym. Foss. Belg. 141. 21 ♂ ♀.

Hab. Britain.

61. Crabro hyalinus.

Crabro hyalinus, *Shuck. Foss. Hym.* 161. 21.

Hab. Britain.

62. Crabro interstinctus.

Crabro interstinctus, *Smith, Zool.* ix. *Append.* p. cxxvi.

Hab. Britain. (Coll. F. Smith.)

63. Crabro leucostoma.

Sphex leucostoma, *Linn. Faun. Suec.* no. 1663; *Syst. Nat.* i. 946. 36.
Villers, Entom. iii. 237. 43.
Crabro leucostoma, *Fabr. Syst. Ent.* 376. 13; *Spec. Ins.* i. 472. 17; *Mant.* i. 297. 27; *Ent. Syst.* ii. 301. 27.
Oliv. Encycl. Méth. vi. 518. 35.
Van d. Lind, Obs. ii. 61. 24.

Crabro leucostoma, *Shuck. Foss. Hym.* 153. 15.
Zett. Ins. Lapp. 444. 9.
Dahlb. Hym. Europ. i. 341. 223.
Herr. Schäff. Faun. Germ. 48. 56.
Wesm. Hym. Foss. Belg. 133. 11.
Pemphredon leucostoma, *Fabr. Syst. Piez.* 314. 1.
Crossocerus leucostoma, *St. Farg. Ann. Soc. Ent. Fr.* iii. 777. 13; *Hym.* iii. 180. 13.
Crabro bidens, *Halid. Ent. Mag.* i. 516 ♂.

Hab. Britain; France; Germany; Belgium; Sweden; Lapland.

64. Crabro luteipalpis. B.M.

Crossocerus luteipalpis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 785. 23 ♂; *Hym.* iii. 188. 22.
Crabro elongatulus, *Van d. Lind, Obs.* ii. 62. 25 ♂.
Dahlb. Hym. Europ. i. 315. 196.
Shuck. Foss. Hym. 154. 16.
Wesm. Hym. Foss. Belg. 138. 18.
Crabro luteipalpis, *Shuck. Foss. Hym.* 155. 17.

Hab. Britain; France; Germany; Belgium; Norway.

65. Crabro obliquus. B.M.

Crabro obliquus, *Shuck. Foss. Hym.* 167. 26 ♂ ♀.
Dahlb. Hym. Europ. i. 315. 195.

Hab. Britain.

66. Crabro podagricus. B.M.

Crabro podagricus, *Van d. Lind, Obs.* ii. 60. 23 ♀.
Shuck. Foss. Hym. 157. 19 ♂ ♀.
Wesm. Hym. Foss. Belg. 130. 5.
Crossocerus podagricus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 786. 24; *Hym.* iii. 189. 23.
Crabro vicinus, *Dahlb. Hym. Europ.* i. 333. 218.

Hab. Britain; France; Germany; Belgium; Sweden.

67. Crabro proximus.

Crabro proximus, *Shuck. Foss. Hym.* 156. 18.

Hab. Britain.

68. Crabro Panzeri. B.M.

Crabro Panzeri, *Van d. Lind, Obs.* ii. 67. 29 ♂ ♀.
Shuck. Foss. Hym. 173. 31.

Lindenius Panzeri, *St. Farg. Ann. Soc. Ent. Fr.* iii. 798. 7; *Hym.* iii. 201. 8.
Dahlb. Hym. Europ. i. 302. 183.
Wesm. Hym. Foss. Belg. 124. 1.

Hab. Britain; France; Germany; Belgium; Denmark; Sweden; Finland.

69. Crabro 4-maculatus. B.M.

Crabro 4-maculatus, *Fabr. Ent. Syst.* ii. 294. 4; *Syst. Piez.* 308. 4.
Spin. Ins. Ligur. fasc. iii. 177. 9.
Dahlb. Hym. Europ. i. 351. 230 ♂ ♀.
Wesm. Hym. Foss. Belg. 139. 19.
Crabro mediatus, *Fabr. Syst. Piez.* 312. 20.
Crabro subpunctatus, *Van d. Lind, Obs.* ii. 58. 19 (nec *Rossi*).
Shuck. Foss. Hym. 147. 12.
Crossocerus subpunctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 766. 3; *Hym.* iii. 170. 3 ♂ ♀.
Blepharipus pauperatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 733. 5; *Hym.* iii. 130. 5.

Hab. Britain; France; Germany; Italy; Belgium; Denmark; Sweden.

70. Crabro scutellaris.

Crabro scutellaris, *Smith, Cat. Brit. Hym. Append.* p. 121.

Hab. Britain. (Coll. F. Smith.)

71. Crabro Shuckardi. B.M.

Crabro exiguus, *Shuck. Foss. Hym.* 174. 32 (nec *Van d. Lind*). the ♂ only.

Hab. Britain.

72. Crabro signatus. B.M.

Crabro signatus, *Panz. Faun. Germ.* 53. 15 ♀.
Jurine, Hym. 212.
Herr. Schäff. Faun. Germ. 179. 20 & 21.
Wesm. Hym. Foss. Belg. 128. 2 ♂ ♀.
Crabro dimidiatus, *Van d. Lind, Obs.* ii. 60. 20.

Hab. Britain; Germany; Belgium.

73. Crabro transversalis. B.M.

Crabro transversalis, *Shuck. Foss. Hym.* 162. 22 ♂.
Dahlb. Hym. Europ. i. 317. 197.

Hab. Britain.

74. Crabro vagabundus. B.M.

Crabro vagabundus, *Panz. Faun. Germ.* 53. 16 ♂.
Van d. Lind, Obs. ii. 57. 18.
Shuck. Foss. Hym. 149. 30.
Wesm. Hym. Foss. Belg. 132. 8.
Blepharipus mediatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 735. 6; *Hym.* iii. 140. 6 ♂ ♀.
Blepharipus 5-maculatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 738. 9 ♂ (var.); *Hym.* iii. 144. 9.
Herr. Schäff. Faun. Germ. 179. 39 ♂ ♀.
Crabro subpunctatus, *Dahlb. Hym. Europ.* i. 349. 229.
Crabro 4-cinctus, *Dahlb. Hym. Europ.* i. 526. 32 ♀ var.?

Hab. Britain; France; Germany; Belgium; Sweden; Nova Scotia.

75. Crabro varius.

Crossocerus varius, *St. Farg. Ann. Soc. Ent. Fr.* iii. 775. 12; *Hym.* iii. 179. 12.
Herr. Schäff. Faun. Germ. 181. 48. t. 23.
Dahlb. Hym. Europ. i. 322. 205.
Crabro spinipectus, *Shuck. Foss. Hym.* 163. 23 ♂ ♀.
Dahlb. Hym. Europ. i. 327. 215 (not var. *b* & *c*).
Crabro varius, *Wesm. Hym. Foss. Belg.* 137. 15.

Hab. Britain; France; Germany; Belgium.

Wesmael refers the *C. spinipectus* ♀ to *C. palmipes*, which it certainly is not; the female of *C. palmipes* has been taken in this country since the publication of Shuckard's work, who did not know that sex, which, as Wesmael points out, differs, amongst other particulars, in having black spines at the apex of the anterior tibiæ. *Crabro spinipectus* appears to be correctly reduced to a synonym of the *C. varius*; both sexes have all the spines at the apex of the tibiæ yellow.

76. Crabro Walkeri. B.M.

Crabro Walkeri, *Shuck. Foss. Hym.* 170. 29 ♂.
Wesm. Hym. Foss. Belg. 140. 20.

Hab. Britain; France; Belgium; Sweden.

77. Crabro Wesmaeli. B.M.

Crabro Wesmaeli, *Van d. Lind, Obs.* ii. 63. 26 ♂ ♀.
Shuck. Foss. Hym. 164. 24.
Dahlb. Hym. Europ. i. 312. 192.
Wesm. Hym. Foss. Belg. 137. 17.

Crossocerus Wesmaeli, *St. Farg. Ann. Soc. Ent. Fr.* iii. 783. 20; *Hym.* iii. 186. 19.

Hab. Britain; France; Germany; Belgium.

78. Crabro affinis.

Crossocerus affinis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 781. 18 ♀; *Hym.* iii. 184. 17.
Dahlb. Hym. Europ. i. 324. 209.

Hab. France.

79. Crabro armatus.

Crabro armatus, *Van d. Lind, Obs.* ii. 71. 31.
Lindenius armatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 793. 2; *Hym.* iii. 195. 2.
Dahlb. Hym. Europ. i. 299. 181.
Wesm. Hym. Foss. Belg. 125. 4.

Hab. France; Belgium.

80. Crabro ambiguus.

Crabro ambiguus, *Dahlb. Dispos. Meth. Spec. Hym.* i. 14. 95; *Hym. Europ.* i. 336. 220.
Wesm. Hym. Foss. Belg. 131. 5.
Crossocerus gonager, *St. Farg. Hym.* iii. 188. 21?
Dahlb. Hym. Europ. i. 325. 212.

Hab. Geneva; Versailles?

81. Crabro Aphidium.

Crossocerus Aphidium, *St. Farg. Ann. Soc. Ent. Fr.* iii. 789. 27 ♀; *Hym.* iii. 192. 26.
Crabro Aphidium, *Dahlb. Hym. Europ.* i. 308. 189.
Herr. Schäff. Faun. Germ. 181. 62.

Hab. France.

82. Crabro apicalis.

Lindenius apicalis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 794. 3 ♀; *Hym.* iii. 196. 3.
Dahlb. Hym. Europ. i. 307. 188.

Hab. France.

83. Crabro annulipes.

Blepharipus annulipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 729. 2 ♀ ; *Hym.* iii. 134. 2.
Dahlb. Hym. Europ. i. 320. 201.

Hab. France.

84. Crabro binotatus.

Crossocerus binotatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 175. 7 ♀ ; *Hym.* iii. 175. 7.

Hab. France.

85. Crabro Fargeii.

Ceratocolus striatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 744. 4 ; *Hym.* iii. 149. 4.

Hab. Paris.

86. Crabro flavipes.

Crabro flavipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 699. 2 ; *Hym.* iii. 102. 2.
Dahlb. Hym. Europ. i. 384. 253.

Hab. France.

87. Crabro intricatus.

Crossocerus striatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 776. 11 ♀.
Dahlb. Hym. Europ. i. 381. 245.

Hab. France.

88. Crabro luteipes.

Blepharipus flavipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 736. 7 ; *Hym.* iii. 142. 7.
Dahlb. Hym. Europ. i. 384. 253.

Hab. France.

89. Crabro Lefebvrei.

Crossocerus Lefebvrei, *St. Farg. Ann. Soc. Ent. Fr.* iii. 174. 6 ♂ ; *Hym.* iii. 174. 6.
Dahlb. Hym. Europ. i. 384. 252.

Hab. France.

90. Crabro Lepeletieri.

Crossocerus striatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 778. 11 ; *Hym.* iii. 178. 11.
Crossocerus striatulus, *Dahlb. Hym. Europ.* i. 321. 204.

Hab. France.

91. Crabro morio.

Crossocerus morio, *St. Farg. Ann. Soc. Ent. Fr.* iii. 781. 17 ; *Hym.* iii. 183. 16.
Dahlb. Hym. Europ. i. 323. 208.

Hab. France.

92. Crabro niger.

Crossocerus niger, *St. Farg. Ann. Soc. Ent. Fr.* iii. 782. 19 ♂ ; *Hym.* iii. 185. 18.
Dahlb. Hym. Europ. i. 324. 210.

Hab. France.

93. Crabro nigritus.

Blepharipus nigrita, *St. Farg. Ann. Soc. Ent. Fr.* iii. 134. 1 ♀ ; *Hym.* iii. 134. 1.
Dahlb. Hym. Europ. i. 320. 200.

Hab. France.

94. Crabro decoratus.

Crossocerus ornatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 774. 10 ♀ ; *Hym.* iii. 177. 10. (See Spec. 42.)
Dahlb. Hym. Europ. i. 385. 255.

Hab. France.

95. Crabro ovalis.

Crossocerus ovalis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 780. 16.
Dahlb. Hym. Europ. i. 323. 207.

Hab. France.

96. Crabro pallidipalpis. B.M.

Crossocerus pallidipalpis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 779. 15 ; *Hym.* iii. 182. 15.
Crabro pallidipalpis, *Dahlb. Hym. Europ.* i. 314. 194.

Hab. France.

97. Crabro pygmæus.

Crabro pygmæus, *Rossi, Faun. Etrus. Mant.* ii. *Append.* 124. 112?
Van d. Lind, Obs. ii. 68. 30 ♀.
Lindenius pygmæus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 797. 6; *Hym.* iii. 199. 6 ♀.
Dahlb. Hym. Europ. i. 305. 185.
Wesm. Hym. Foss. Belg. 125. 3.
Lindenius curtus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 799. 9 ♂; *Hym.* iii. 201. 9.
Dahlb. Hym. Europ. i. 306. 187.

Hab. France; Germany; Belgium.

98. Crabro pusillus.

Crossocerus pusillus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 778. 14; *Hym.* iii. 181. 14.
Lucas, Explo. Sc. Algér. iii. 225. 208.
Crabro pusillus, *Dahlb. Hym. Europ.* i. 323. 206.

Hab. France; Algeria.

99. Crabro rubicola.

Solenius rubicola, *Dufour, Ann. Soc. Ent. Fr.* ix. 25. 10. t. 2. f. 33–36 ♂ ♀.
Crabro (Ectemnius) rubicola, *Dahlb. Hym. Europ.* i. 389. 267.

Hab. France.

100. Crabro læviceps.

Crossocerus rufipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 784. 21 ♂; *Hym.* iii. 187. 20.
Dahlb. Hym. Europ. i. 324. 211.

Hab. France.

101. Crabro striatulus.

Blepharipus striatulus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 737. 8 ♂; *Hym.* iii. 143. 8.
Crabro striatulus, *Dahlb. Hym. Europ.* i. 367. 238.

Hab. France.

102. Crabro striatus.

Crabro striatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 707. 9; *Hym.* iii. 110. 9.
Lucas, Explo. Sc. Algér. iii. 245.

Crabro cephalotes, *Oliv. Encycl. Méth.* vi. 513. 9 ?
Panz. Faun. Germ. 62. 16.
Spin. Ins. Ligur. ii. 178. 11.

Hab. France.

103. Crabro subæneus.

Lindenius subæneus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 798. 7 ; *Hym.* iii. 200. 7.
Dahlb. Hym. Europ. i. 305. 186.

Hab. Paris.

104. Crabro venustus.

Lindenius venustus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 796. 5 ♀ ; *Hym.* iii. 198. 5.
Dahlb. Hym. Europ. i. 304. 184.

Hab. France.

105. Crabro varipes.

Crossocerus varipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 773. 9 ♀ ; *Hym.* iii. 176. 9.
Dahlb. Hym. Europ. i. 321. 202.

Hab. France.

106. Crabro assimilis.

Crabro affinis, *Wesm. Hym. Foss. Belg.* 130. 6 ♀ (nec *St. Farg.*).

Hab. Belgium.

107. Crabro dentricus.

Crabro dentricus, *Herr. Schäff. Faun. Germ.* 181. 48. no. 7. t. 20 ♂.
Wesm. Hym. Foss. Belg. 143. 22.

Hab. Belgium.

108. Crabro lævipes.

Crabro lævipes, *Van d. Lind, Obs.* ii. 67. 27 (var. 4-maculatus ♂ ?).
Dahlb. Hym. Europ. i. 313. 193.
Herr. Schäff. Faun. Germ. 317. 198 ?

Hab. Belgium.

109. Crabro guttatus.

Crabro guttatus, *Van d. Lind, Obs.* ii. 49. 9.
Dahlb. Hym. Europ. i. 400. 270.

Crabro guttatus, *Wesm. Hym. Foss. Belg.* 150. 31.
Crabro spinicollis, *Herr. Schäff. Faun. Germ.* 181. 27. t. 1 & 2.
Crabro parvulus, *Herr. Schäff. Faun. Germ.* 181. 37. t. 15 ♂.
Crabro borealis, *Dahlb. Exam. Crabr.* 81. 22. t. 5 ♂; *Dispos.* 15. 112.

Hab. Belgium; Germany; Austria; Sweden; Finland.

110. Crabro congener.

Crabro congener, *Dahlb. Hym. Europ.* i. 335. 219 ♀.

Hab. Germany.

111. Crabro Loewi.

Crabro Loewi, *Dahlb. Hym. Europ.* i. 368. 239 ♂.

Hab. Germany.

112. Crabro rugifer.

Crabro rugifer, *Dahlb. Hym. Europ.* i. 404. 271 ♂.

Hab. Germany.

113. Crabro sinuatus.

Crabro sinuatus, *Fabr. Syst. Piez.* 310. 12.

Hab. Germany.

114. Crabro annulatus.

Crossocerus annulatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 787. 24 ♀; *Hym.* iii. 190. 24.
Dahlb. Hym. Europ. i. 325. 213.

Hab. Austria (Vienna).

115. Crabro Kollari.

Crabro Kollari, *Dahlb. Hym. Europ.* i. 415. 274.

Hab. Austria; Germany.

116. Crabro varus.

Crabro varus, *Panz. Faun. Germ.* 62. 17.

Hab. Austria.

117. Crabro basalis. B.M.

Female. Length 4½ lines.—Black: the head closely punctured; the clypeus covered with silvery pubescence; the scape yellow, three or four of the basal joints of the flagellum of a reddish-yellow; the mandibles obscurely ferruginous. Thorax longitudinally coarsely rugose, the metathorax behind, and at the sides, transversely striate; a spot on each side of the collar and the tubercles yellow; the wings slightly coloured, the nervures and tegulæ ferruginous; the legs ferruginous, the anterior tibiæ yellowish. Abdomen closely punctured; the basal segment ferruginous, the second, third, fourth and fifth segments with an ovate pale yellow macula on each side; beneath, the first and second segments and the extreme apex ferruginous.

Hab. Polish Ukraine.

118. Crabro cinxius.

Crabro cinxius, *Dahlb. Hym. Europ.* i. 318. 199.
Wesm. Hym. Foss. Belg. 129. 4.

Hab. Norway.

119. Crabro Lapponicus.

Crabro lapponicus, *Zett. Ins. Lapp.* 443. 3 ♀.
Dahlb. Hym. Europ. i. 363. 235.

Hab. Lapland; Norway.

120. Crabro melanarius.

Crabro podagricus, *Dahlb. Hym. Europ.* i. 339. 222 (nec *Shuck.*).
Crabro melanarius, *Wesm. Hym. Foss. Belg.* 133.

Hab. Sweden.

121. Crabro sulphureipes. B.M.

Male. Length 4 lines.—Black: the head as large as the thorax, finely punctured, the sides swollen; the clypeus covered with silvery pubescence; the scape and mandibles yellow, their tips rufo-piceous. Thorax closely punctured, the metathorax rugose, with a longitudinal channel extending from the base to the apex; the collar, tubercles, scutellum, post-scutellum, and legs of a sulphur-yellow; the coxæ, trochanters, and extreme base of the femora, black; the wings fulvo-hyaline; the collar produced on each side into a sharp subdentate angle. Abdomen with three broad yellow bands, the first at the base of the second segment and subinterrupted; the second at the base of the fourth,

and the third at the base of the fifth; sometimes a narrow stripe at the base of the sixth.

Hab. Sicily.

This species bears a close resemblance to *C. vagus*, but is at once distinguished by the acuter angles of the prothorax. The femora have sometimes their basal half black.

122. Crabro bucephalus.

Male. Length 2¾ lines.—Black and shining: the head wider and larger than the thorax, with scattered punctures, the ocelli placed in a triangle on the vertex, a deep depression at the side of the posterior pair; the face deeply depressed, thinly covered as well as the clypeus with silvery pubescence; the tips of the scape and the flagellum rufo-piceous; a yellow spot at the inner orbit of the eyes, towards the vertex; the mandibles yellow, ferruginous towards their apex, with the tips black. Thorax with a few scattered punctures; the collar elevated, the anterior lateral angles acute; the scutellum, tubercles and collar yellow; the wings hyaline and iridescent; the legs rufo-testaceous; the tips of the anterior and intermediate femora, their tibiæ and tarsi, yellow, the tibiæ with a dark stain beneath; the posterior femora yellow at their base. Abdomen: the first segment with two spots in the middle, the second segment with a large ovate macula on each side.

Hab. Sicily.

123. Crabro hilaris. B.M.

Female. Length 4½ lines.—Black: the head closely punctured; the scape, basal joint of the flagellum, the clypeus and mandibles, yellow, the latter black at their apex; the clypeus covered with golden pubescence. Thorax closely punctured; the collar, tubercles, an oblong spot beneath the wings, with one or two minute dots behind, the tegulæ, scutellum, and a minute spot at its anterior angles and two spots on the post-scutellum, yellow; the metathorax ruggedly sculptured; the wings fulvo-hyaline, the nervures and a stain on the tegulæ ferruginous; the apex of the wings smoky; the legs yellow, a rufo-piceous stain on the anterior and intermediate femora above, the posterior pair entirely so; the claw-joint of the tarsi ferruginous. Abdomen elongate, lanceolate, the first segment narrowed at its base and forming a petiole; the petiole dark rufo-piceous, the apical half of the segment yellow; two large maculæ on the second segment nearly touching in the middle, the third, fourth and fifth segments with a broad yellow fascia on their apical

margins; beneath, each segment with a broad bisinuated yellow band on its apical margin; the apex of the first and the base of the second segment ferruginous.

Hab. Florida (St. John's Bluff). (Coll. E. Doubleday, Esq.)

124. Crabro impressifrons.

Crabro tibialis, *Say, Narr. Exped. St. Peter's River, Append.* p. 73. 1.

Hab. Pennsylvania.

125. Crabro dubius.

Solenius interruptus, *St. Farg. Ann. Soc. Ent. Fr.* (1834) iii. 716. 3; *Hym.* iii. 122. 4.

Crabro confluentus, *Say, Bost. Journ.* i. 376 (1834–7) (var.?).

Hab. North America.

126. Crabro maculatus. B.M.

Crabro maculatus, *Fabr. Ent. Syst.* ii. 295. 8; *Syst. Piez.* 309. 9.

Hab. North America.

127. Crabro pictus.

Blepharipus maculatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 730. 3; *Hym.* iii. 135. 3 (nec *Fabr.*).

Crabro maculatus, *Dahlb. Hym. Europ.* i. 344. 226.

Hab. North America.

128. Crabro maculipennis. B.M.

Blepharipus maculatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 730. 3 ♀ (nec *Fabr.*); *Hym.* iii. 135. 3.

Crabro maculatus, *Dahlb. Hym. Europ.* i. 344. 226.

Hab. North America.

Specimens from Hudson's Bay have the wings spotted a little differently to the description of St. Fargeau, as follows:—a small oblong-quadrate brown spot in the middle of the marginal cell, another at the apex of the externo-medial cell, and a third in the middle of the first recurrent nervure; in other respects the insects agree with St. Fargeau's description; but the species is quite distinct from the *maculatus* of Fabricius.

129. Crabro singularis. B.M.

Male. Length 5–6 lines.—Black: the head narrower than the thorax, the vertex much narrowed behind; the face deeply chan-

neled and striated longitudinally before the ocelli, and transversely so behind; the mandibles and scape yellow, the latter with a black spot behind; the base of the flagellum reddish-yellow, the third joint emarginate at the base and thickened at the apex. Thorax: the collar channeled, the lateral angles subdentate, and having a yellow spot on each side, the tubercles yellow; the mesothorax longitudinally striated; the scutellum shining and punctured; the metathorax very coarsely rugulose; wings yellowish, a narrow fuscous stain on the anterior margin beyond the stigma, the nervures ferruginous; the legs yellow, the intermediate femora fuscous beneath, the posterior pair rufo-fuscous, yellowish at their apex above; the apical joints of the tarsi black. Abdomen smooth and shining, subpetiolate; the second and four following segments with an ovate macula on each side at their basal margins, each one smaller than the preceding.

Hab. North America (Trenton Falls). (Coll. E. Doubleday, Esq.)

130. Crabro 6-maculatus. B.M.

Crabro 6-maculatus, *Say, Narr. Exped. St. Peter's River, Append.* p. 74. 3.

Hab. Pennsylvania.

131. Crabro scutellatus.

Crabro scutellatus, *Say, Narr. Exped. St. Peter's River, Append.* p. 74. 2.

Hab. Pennsylvania.

132. Crabro scaber.

Solenius scaber, *St. Farg. Ann. Soc. Ent. Fr.* iii. 715. 2 ♂; *Hym.* iii. 121. 3.
Dahlb. Hym. Europ. i. 387. 260.

Hab. Philadelphia.

133. Crabro rufipes.

Ceratocolus rufipes, *St. Farg. Ann. Soc. Ent. Fr.* iii. 741. 2 ♀; *Hym.* iii. 146. 2.
Dahlb. Hym. Europ. i. 381. 244.

Hab. Carolina.

134. Crabro obscurus. B.M.

Female. Length 4 lines.—Black: head large, subquadrate; the ocelli in a triangle on the vertex; the clypeus covered with

golden pubescence; the middle of the mandibles and the scape yellow. Thorax: a spot on each side of the collar, the tubercles, and a spot in the middle of the post-scutellum, yellow; the mesothorax longitudinally roughened; the scutellum shining and with longitudinal punctures; the metathorax with a deep central longitudinal channel, which is transversely striated; the base of the metathorax coarsely obliquely striated, posteriorly transversely so; the wings slightly coloured, the nervures rufo-testaceous; the tibiæ and tarsi yellow; the claw-joint fuscous, as well as the second, third and fourth joints of the posterior pair. Abdomen smooth and shining, the second, third and fourth segments with a yellow fascia on their basal margins, the first three interrupted; the apical segment pinched at the sides and covered with yellow pubescence; beneath, immaculate.

The male closely resembles the female, but has a silvery pubescence on the clypeus, and the spots on the collar and post-scutellum obliterated; the fasciæ on the abdomen reduced to oblong lateral spots; the tibiæ have a black stain beneath.

Hab. Hudson's Bay. (Coll. G. Barnston, Esq.)

135. Crabro trifasciatus. B.M.

Crabro trifasciatus, *Say, Narr. Exped. St. Peter's River, Append.* p. 74. 4 (var. 6-maculatus?).

Hab. Pennsylvania; Hudson's Bay.

This species scarcely differs from *C. vagus*, and may be regarded as the American representative of it: the yellow markings are much paler; the antennæ of the male are of the same form as in *C. vagus*, and are apparently 12-jointed, as in that species.

136. Crabro frigidus. B.M.

Female. Length 5½ lines.—Black: the head finely punctured, the cheeks sparingly so, smooth and shining; the ocelli in a curve on the vertex; the scape and mandibles yellow, the base and apex of the latter black. Thorax: the mesothorax longitudinally striated; the scutellum shining, punctured at the base, and longitudinally striated beyond; the metathorax with a sub-defined half-circular space at its base, which is coarsely striated obliquely; posteriorly it is very coarsely and deeply rugulose; a spot on each side of the collar and the tubercles yellow, the anterior lateral angles of the collar subdentate; the knees, tibiæ and tarsi yellow, the apical joints of the latter fuscous, the extreme apex of the tibiæ with a ferruginous stain; the wings

fusco-hyaline. Abdomen smooth and shining, the first segment very delicately punctured, the following segments more distinctly so; the second and three following segments with an ovate pale yellow macula on each side at their basal margin; the apical segment produced into an obtuse spine, which has a sharp raised margin, and is covered sparingly with oblong punctures.

Hab. North America.

137. Crabro confluentus. B.M.

Crabro confluentus, *Say, Bost. Journ.* i. 376.

Hab. N. America (Indiana).

138. Crabro collinus. B.M.

Male. Length 5 lines.—Black: the head closely punctured; the clypeus and face with a golden pubescence; the cheeks thinly covered with silvery pubescence; the antennæ simple; the scape, basal joint of the flagellum, and the mandibles, yellow, the apex of the latter black. Thorax: the mesothorax coarsely punctured; the metathorax with a transverse enclosed space at its base, which is closely punctured, and with a series of deep fossulets around its margins, the sides and posterior portion very coarsely rugulose; the collar, tubercles, a spot on the tegulæ in front, and the post-scutellum, yellow; the legs yellow, with the femora reddish; wings fusco-hyaline, the tegulæ ferruginous. Abdomen shining, closely punctured, most sparingly but most strongly so at the base; an elongate-ovate yellow spot on each side of the three basal segments; the two following have a transverse narrow yellow band, the first slightly interrupted.

Hab. East Florida (St. John's Bluff). (Coll. R. Foster, Esq.)

139. Crabro chrysarginus. B.M.

Crabro chrysarginus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 711. 12; *Hym.* iii. 114. 12.
Crabro arcuatus, *Say, Bost. Journ.* i. 377.
Crabro chrysargurus, *Dahlb. Hym. Europ.* i. 386. 257.

Hab. N. America (Indiana); Hudson's Bay.

140. Crabro aurifrons. B.M.

Female. Length 6 lines.—Black: the clypeus and face covered with golden pubescence; the scape, basal joint of the flagellum, and the mandibles, yellow outside; the head as wide as the thorax, delicately punctured, with the ocelli in an obtuse

triangle. Thorax: the collar slightly interrupted, the tubercles, a line at the base of the scutellum, and the post-scutellum, yellow; the mesothorax and scutellum coarsely punctured; the metathorax with an enclosed space at its base and a broad longitudinal channel which is transversely carinated, and entirely coarsely rugose; the wings fulvous, the nervures and tegulæ ferruginous; the legs reddish-yellow, the femora darkest, the apical joints of the tarsi fuscous. Abdomen finely punctured; the first and second segments with a lateral ovate yellow spot in the middle; the third, fourth and fifth segments with a narrow line on each side in the middle, the lines extending further inwards on each successive segment.

Hab. Georgia.

141. Crabro advena. B.M.

Female. Length 4½ lines.—Black: the head with fuscous pubescence; the scape, clypeus, and a stripe on the mandibles, yellow; the clypeus covered with silvery pubescence; the ocelli in a triangle on the vertex. Thorax: a slightly interrupted line on the collar, tubercles, and a transverse stripe at the base of the scutellum, yellow; the mesothorax closely punctured, the metathorax very coarsely rugose; the tibiæ and tarsi yellow, a fuscous spot on the tibiæ beneath at their apex; the apical joints of the tarsi rufo-fuscous; the wings fusco-hyaline, the nervures and tegulæ ferruginous. Abdomen: the first, second and third segments with an interrupted yellow band placed a little behind the middle; the fourth and fifth segments with a yellow fascia on their apical margins; the apical segment forming an elongated triangle, obtuse at the apex and longitudinally rugose; beneath, smooth, shining and impunctate.

Male.—The clypeus and mandibles black; the flagellum fulvous beneath, with the second, third, fourth and fifth joints produced into a tooth at the apex; the punctures of the mesothorax running into elongate striæ; the thorax beneath covered with hoary pubescence; the anterior femora are ferruginous within, black behind, and have a yellow stripe beneath; the intermediate femora yellow at their apex; the tibiæ are yellow above and black beneath; the tarsi yellow, their apical joints fusco-ferruginous; all the segments of the abdomen with yellow fasciæ, the first four slightly interrupted.

Hab. Nova Scotia.

142. Crabro unicolor. B.M.

Female. Length 6 lines.—Black: the head and thorax opake;

the abdomen shining; the stemmata in a triangle on the vertex; the face deeply canaliculated, covered, as well as the clypeus, with silvery pubescence. The disk of the thorax very finely and closely punctured, slightly shining; the metathorax finely longitudinally rugose, with a central longitudinal channel extending from the base to the apex; wings smoky, the posterior pair palest. Abdomen faintly punctured towards the apex, the apical segment more strongly so, with the margins carinated, the apex rounded.

Hab. Sandwich Islands.

143. Crabro distinctus. B.M.

Female. Length 3 lines.—Black: the head and thorax opake; the stemmata in a curve on the vertex; the face canaliculated; the inner orbit of the eyes half-way towards their vertex, and the clypeus, covered with golden pubescence; the scape and mandibles yellowish-white, the tips of the mandibles, and a narrow stripe on the scape within, black. Thorax: an interrupted line on the collar, the tubercles and a spot behind, the scutellum and post-scutellum, yellowish-white; wings faintly coloured and iridescent. Abdomen: the basal segment with a large transverse irregular-shaped spot, which is somewhat arched in front, and with two deep rounded emarginations behind, which have a wide one outside extending to the apex of the spot; the second, fourth and fifth segments have an uninterrupted fascia at their base, of a yellowish-white; the apical segment shining and punctured.

Hab. Sandwich Islands.

144. Crabro fuscipennis.

Crabro fuscipennis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 710. 11; *Hym.* iii. 113. 11.

Dahlb. Hym. Europ. i. 385. 255.

Hab. India.

145. Crabro insignis.

Female. Length 6½ lines.—Black: head opake, subquadrate, rather wider than the thorax; the stemmata in a curve placed forwards on the vertex; the clypeus covered with pale golden pubescence; antennæ and mandibles black. Thorax opake: the collar grooved, with the anterior angles acute; the mesothorax longitudinally striated, with three abbreviated carinæ in front; the metathorax with a half-circular space at its base,

enclosed by a sharp ridge, in the centre of which are two longitudinal carinæ; on each side it is striated; the sides coarsely rugose, behind transversely striated; the wings fusco-hyaline, with a violet iridescence, the nervures rufo-fuscous; the anterior tibiæ ferruginous within; the posterior femora with a yellow stripe above, and the tibiæ with a stripe outside. Abdomen shining, the first segment with a yellow band in the middle which emits a quadrate spot in front and has two deep notches behind; the second, third, fourth and fifth segments with a yellow fascia at their basal margins, which are narrowed in the middle; beneath, the second and third segments have a yellow spot on each side.

Hab. India. (Coll. W. W. Saunders, Esq.)

146. Crabro argentatus.

Lindenius argentatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 792. 1; *Hym.* iii. 194. 1.
Dahlb. Hym. Europ. 300. 182.

Hab. India.

147. Crabro semipunctatus.

Crabro semipunctatus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 711. 13 ♀; *Hym.* iii. 115. 13.
Dahlb. Hym. Europ. i. 386. 258.

Hab. Rio Janeiro.

148. Crabro opulentus. B.M.

Female. Length 4 lines.—Black: the head closely punctured, the ocelli in a curve; the face, above the insertion of the antennæ, with a changeable golden pile; a similar lustre on the vertex behind the eyes; that on the lower portion of the cheeks, base of the mandibles, clypeus, and inner orbit of the eyes, is dense, bright and silvery; the scape yellow. Thorax: the mesothorax covered with large confluent punctures; the scutellum with distinct separated punctures; the mesothorax has a central carina, and on each side of it a much more elevated one, all extending from the base to the disk; the metathorax with a deep longitudinal central channel, and a half-circular sub-enclosed space at its base, which is obliquely and very coarsely grooved; on each side of the enclosure it is coarsely sculptured; the posterior portion of the metathorax coarsely rugose, the lateral margins raised; the collar, tubercles, a spot beneath the wings, a double spot at the anterior lateral angles of the scutellum, and the post-scutellum, yellow; a spot at the apex of the anterior

femora beneath, another on the tibiæ above; the intermediate femora beneath, the tibiæ at their base above, and the posterior tibiæ with a stripe at their apex outside, yellow; the tarsi rufo-piceous; the wings slightly coloured and iridescent. Abdomen: the two basal segments strongly punctured, the base of the first smooth and shining, the apical margins of both depressed; the first and second segments with a broad, oblong, transverse macula on each side in the middle; the third, fourth and fifth segments with a narrow interrupted fascia, also in the middle; the apical segment pinched in at the sides, which are yellow; above, with the sides raised, forming an oblong channel.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

149. Crabro flavipennis.

Ceratocolus flavipennis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 740. 1; *Hym.* iii. 145. 1.
Dahlb. Hym. Europ. i. 381. 243.

Hab. Brazil.

150. Crabro crœsus.

Solenius crœsus, *St. Farg. Ann. Soc. Ent. Fr.* iii. 727. 12 ♂ ♀; *Hym.* iii. 132. 12.
Dahlb. Hym. Europ. i. 388. 266.

Hab. Cuba.

151. Crabro carbonarius. B.M.

Female. Length 6 lines.—Black: the head and thorax slightly shining; the clypeus covered with silvery pubescence. Thorax: the lateral angles of the collar produced and acutely margined; at the sides, immediately beneath the raised margin, is a fossulet; the collar above has sometimes two slightly raised tubercles; the mesothorax smooth, with an abbreviated impressed line on each side, rather before the tegulæ; the impressed line at the margins of the scutellum simple, that at the base of the metathorax consute; the metathorax smooth and shining, with a deeply impressed line down the centre, which expands into a broad fossulet at the apex; at the sides a little griseous pubescence; the wings hyaline, the nervures ferruginous, the costal nervure black; the tegulæ testaceous; the apical joints of the tarsi testaceous. Abdomen highly polished, smooth and shining; the fourth segment pubescent; its apical margin fuscous; the apical segment punctured and sprinkled with pale hairs, its margins raised.

Hab. New Zealand.

152. Crabro occultus.

Crabro? occultus, *Fabr. Syst. Piez.* 310. 14.
Dahlb. Hym. Europ. i. 343. 221.

Hab. Tangiers.

153. Crabro chrysis.

Crossocerus chrysis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 770. 5 ♂; *Hym.* iii. 173. 5.
Dahlb. Hym. Europ. i. 366. 236.

Hab. Brazil.

154. Crabro Tasmanicus. B.M.

Female. Length 6 lines.—Black: head subopake, very closely punctured, the inner orbit of the eyes and the clypeus covered with silvery pubescence, the latter with a central carina; antennæ wanting. Thorax opake; an interrupted line on the collar, which is deeply grooved, with the lateral angles acute; the enclosed space at the base of the metathorax obliquely rugose, the posterior portion transversely so; wings slightly coloured; the tegulæ rufo-testaceous; the anterior femora ferruginous, the intermediate and posterior pairs above and the tibiæ and tarsi ferruginous. Abdomen shining, very closely and finely punctured, the second segment with an oblique yellow stripe on each side at the base; the fourth segment with a yellow band at the basal margin; beneath, very smooth and shining.

Hab. Tasmania.

155. Crabro luteicollis.

Crossocerus lutei-collis, *St. Farg. Ann. Soc. Ent. Fr.* iii. 769. 4; *Hym.* iii. 172. 4.
Dahlb. Hym. Europ. i. 384. 251.

Hab. ——?

Genus 5. SPILOMENA.

Stigmus, pt., *Van d. Lind, Obs.* ii. 74 (1829).
Celia, *Shuck. Foss. Hym.* 182 (1837).
Spilomena, *Shuck. Trans. Ent. Soc.* ii. 79 (1840).

1. Spilomena troglodytes. B.M.

Stigmus troglodytes, *Van d. Lind, Obs.* ii. 74. 2.
St. Farg. Hym. iii. 99. 2.

Celia troglodytes, *Shuck. Foss. Hym.* 182. 1.
Dahlb. Hym. Europ. i. 238. 139.
Spilomena troglodytes, *Wesm. Hym. Foss. Belg* 123. 1.
Smith, Cat. Brit. Hym. 32. gen. 4.

Hab. Britain; France; Germany; Belgium; Sweden.

Genus 6. STIGMUS.

Stigmus, *Jurine, Hym.* p. 139 (1804).

1. STIGMUS PENDULUS. Pl. X. fig. 1. B.M.

Stigmus pendulus, *Panz. Faun. Germ.* 86. 7.
Van d. Lind, Obs. ii. 74. 1.
Shuck. Foss. Hym. 181. 1.
Dahlb. Hym. Europ. i. 239. 141.
St. Farg. Hym. iii. 98. 1.
Wesm. Hym. Foss. Belg. 122. 1.
Stigmus ater, *Jurine, Hym.* 132. t. 9. gen. 7.
Latr. Gen. Crust. et Ins. iv. 84.
Spin. Ins. Lig. ii. 174. 1; *Ann. Soc. Ent. Fr.* (1840) p. 35.

Hab. Britain; France; Italy; Germany; Belgium; Sweden.

Genus 7. PASSALŒCUS.

Pemphredon, pt., *Van d. Lind, Obs.* ii. 79 (1829).
Diodontus, pt., *Curtis, Brit. Ent.* xi. 496 (1835).
Xylæcus, *Shuck. Foss. Hym. Consp. Gen.* (1837).
Passalœcus, *Shuck. Foss. Hym.* 188 (1837).

1. PASSALŒCUS INSIGNIS. B.M.

Pemphredon insignis, *Van d. Lind, Obs.* ii. 79. 3 ♂ (non ♀).
St. Farg. Hym. iii. 96. 3?
Diodontus insignis, *Curtis, Brit. Ent.* fol. 497. pl. 497.
Passalœcus insignis, *Shuck. Foss. Hym.* 189. 1.
Dahlb. Hym. Europ. i. 248. 148.
Wesm. Hym. Foss. Belg. 122. 4.

Hab. Britain; France; Germany; Belgium.

2. PASSALŒCUS CORNIGER. B.M.

Passalœcus corniger, *Shuck. Foss. Hym.* 191. 3.
Dahlb. Hym. Europ. i. 245. 145.

Hab. Britain; Sweden.

3. Passalœcus Turionum.

Passalœcus Turionum, *Dahlb. Hym. Europ.* i. 246. 146.
Wesm. Hym. Foss. Belg. 122. 3.

Hab. Germany; Sweden; Norway.

4. Passalœcus gracilis. B.M.

Diodontus gracilis, *Curtis, Brit. Ent.* xi. t. 496.
Passalœcus gracilis, *Shuck. Foss. Hym.* 190. 2.
Dahlb. Hym. Europ. 242. 142.
Wesm. Hym. Foss. Belg. 121. 1.

Hab. Britain; Germany; Norway; Sweden; Finland.

5. Passalœcus monilicornis.

Pemphredon insignis, *Van d. Lind, Obs.* ii. 79. 3 ♀ (non ♂).
Passalœcus monilicornis, *Dahlb. Hym. Europ.* i. 243. 144.
Wesm. Hym. Foss. Belg. 122. 2.

Hab. Germany; Sweden; Norway; Finland.

6. Passalœcus singularis.

Passalœcus singularis, *Dahlb. Hym. Europ.* i. 243. 143 (var. *gracilis* ♂?).

Hab. Scandinavia.

7. Passalœcus borealis.

Passalœcus borealis, *Dahlb. Hym. Europ.* i. 247. 147 ♂ ♀.

Hab. Lapland; Norway.

8. Passalœcus cuspidatus. B.M.

Female. Length 3¼ lines.—Black: the head finely and closely punctured; the scape in front, the labrum and mandibles yellow, the latter rufo-piceous at their apex; the palpi yellow. Thorax closely and finely punctured on the disk; the metathorax coarsely rugose; the wings fusco-hyaline, the costal nervure and stigma black, the nervures testaceous; the anterior tibiæ in front, the tubercles and base of the posterior tibiæ, yellow; the apical joints of the tarsi fusco-ferruginous, the anterior pair palest. Abdomen: the petiole very short, rugose above; the abdomen smooth and shining.

Hab. Hudson's Bay.

Genus 8. PEMPHREDON.

Crabro, pt., *Fabr. Ent. Syst.* ii. 293 (1793).
Sphex, pt., *Panz. Faun. Germ.* 52 (1804).
Pemphredon, *Latr. Hist. Nat. Ins.* xiii. (1805).
Cemonus, *Jurine, Hym.* 214 (1807).

1. Pemphredon lugubris. B.M.

Crabro lugubris, *Fabr. Ent. Syst.* ii. 302. 30.
Sphex unicolor, *Panz. Faun. Germ.* 52. 24.
Cemonus unicolor, *Panz. Krit. Revis.* ii. 187.
Jurine, Hym. t. 11. gen. 28.
Cemonus lugubris, *Jurine, Hym.* p. 214.
St. Farg. Hym. iii. 94. 1.
Pemphredon lugubris, *Latr. Hist. Nat.* xiii. 325.
Fabr. Syst. Piez. 315. 2.
St. Farg. & Serv. Encycl. Méth. x. 48. 1.
Van d. Lind, Obs. ii. 80. 4.
Shuck. Foss. Hym. 196. 1.
Dahlb. Hym. Europ. 259. 159.
Zett. Ins. Lapp. 441. 1.
Wesm. Hym. Foss. Belg. 118. 1.

Hab. Britain; France; Germany; Belgium; Sweden; Norway.

2. Pemphredon luctuosus. B.M.

Pemphredon luctuosus, *Shuck. Foss. Hym.* 197. 2 ♂.
Dahlb. Hym. Europ. i. 258. 158.

Hab. Britain.

This is in all probability a variety of the male of *lugubris*, the only difference being that the ridge which encloses the subcordiform space at the base of the metathorax is smooth and shining, whereas it is usually obliquely striated; but every degree of approach to smoothness is to be met with. No example of the female has occurred with the smooth limbus, although many hundreds have been examined.

3. Pemphredon montanus.

Pemphredon montanus, *Dahlb. Hym. Europ.* i. 262. 160 ♀ ♂.

Hab. Italy; Norway; Lapland.

4. Pemphredon lugens.

Pemphredon lugens, *Dahlb. Disp. Meth. Spec. Hym.* 12. 76 ♀ ♂. *Zett. Ins. Lapp.* 444. 1.

Hab. Sweden; Lapland; Gothland.

5. Pemphredon annulatus.

Pemphredon? annulatus, *Say, Bost. Journ.* i. 379. 2.

Hab. N. America (Indiana).

6. Pemphredon concolor.

Pemphredon? concolor, *Say, Narr. Exped. St. Peter's River, Append.* p. 72. 1.

Hab. Pennsylvania.

7. Pemphredon marginatus.

Pemphredon? marginatus, *Say, Bost. Journ.* i. 379. 1.

Hab. N. America; Pennsylvania.

Genus 9. MIMESA.

Trypoxylon, pt., *Fabr. Syst. Piez.* 182. 6 (1804).
Psen, *Latr. Nouv. Dict.* 2nd ed. 28 (1816).
Mimesa, *Shuck. Foss. Hym.* 228 (1837).

1. Mimesa unicolor. B.M.

Psen unicolor, *Van d. Lind, Obs.* ii. 105. 3.
Mimesa unicolor, *Shuck. Foss. Hym.* 231. 3 ♂ ♀.
Wesm. Hym. Foss. Belg. 108. 1.
Smith, Cat. Brit. Hym. 41. 3.
Mimesa borealis, *Dahlb. Hym. Europ.* i. 2. 2 ♂ ♀.

Hab. Britain; Germany; Belgium; Sweden.

Dahlbom, in the diagnosis of this species, says that the petiole is carinated above, the carina being "non sulcata." The examination of a large number of examples shows this to be a variable character: in some specimens of males the channel is scarcely perceptible; and there can be little doubt of the correctness of Wesmael's opinion in regarding the *M. borealis* as synonymous with *M. bicolor*.

2. Mimesa Dahlbomi. B.M.

Mimesa unicolor, *Dahlb. Hym. Europ.* i. 1. 1 ♂ ♀.
Psen unicolor, *St. Farg. Hym.* iii. 44. 4.
Mimesa Dahlbomi, *Wesm. Hym. Foss. Belg.* 108. 2.

Hab. Britain; France; Belgium; Sweden; Lapland.

This species is here introduced for the first time into the British list. It was detected amongst the examples arranged as *M. unicolor* in the collection of the late J. F. Stephens, Esq.

3. Mimesa equestris. B.M.

Trypoxylon equestre, *Fabr. Syst. Piez.* 182. 6.
Psen rufa, *Panz. Faun. Germ.* 96. 17 ♀?
Psen equestris, *Panz. Krit. Revis.* ii. 110.
Van d. Lind, Obs. ii. 107. 4.
Curtis, Brit. Ent. i. t. 25 ♀.
Mimesa equestris, *Shuck. Foss. Hym.* 229. 1 ♂ ♀.
Dahlb. Hym. Europ. i. 4. 5.
Wesm. Hym. Foss. Belg. 109. 3?
Mimesa Shuckardi, *Wesm. Hym. Foss. Belg.* 115. 5.

Hab. Britain; France; Germany; Sweden.

M. Wesmael has been misled in changing the name *M. equestris* to *M. Shuckardi*, supposing the British species to be distinct from the *equestris* of Fabricius; this is quite possible, and the examples referred to this species by M. Wesmael are probably distinct; but although Shuckard has not described the petiole so minutely as Wesmael, yet all his characters belong to it: *its dorsal surface is flat, shining, and more or less rugose; the lateral faces are bordered by an elevated longitudinal line, and have also a central carina; beneath, it is flat and slightly hollowed out at its extremity, and the second segment has sometimes an irregularly shaped black spot.*

4. Mimesa bicolor. B.M.

Psen bicolor, *Jurine, Hym.* t. 13 ♂.
Mimesa bicolor, *Shuck. Foss. Hym.* 230. 2 ♂ ♀.
Wesm. Hym. Foss. Belg. 113. 4.
Mimesa lutaria, *Dahlb. Hym. Europ.* i. 4. 4.
Psen equestris, *St. Farg. Hym.* iii. 43. 3.

Hab. Britain; France; Belgium; Scandinavia.

5. Mimesa fraternus.

Mimesa? fraternus, *Say, Narr. Exped. St. Peter's River, Append.* 73.

Hab. Pennsylvania.

6. Mimesa mellipes.

Psen? mellipes, *Say, Bost. Journ.* i. 369. 1.

Hab. N. America (Indiana).

7. Mimesa borealis. B.M.

Male. Length $2\frac{3}{4}$ lines.—Black: the head shining and finely punctured on the vertex, the face with a thin silvery pubescence; the antennæ clavate; tips of the mandibles ferruginous. Thorax shining and punctured, sparingly pubescent above, more thickly so on the sides and beneath, the pubescence of a silvery brightness; the metathorax very coarsely rugose; the tarsi pale rufo-testaceous; the wings hyaline and iridescent. Abdomen very smooth and shining, beyond the first segment thinly covered with short silky pubescence; the petiole with a longitudinal central carina, its apex acuminate, and having a central channel running from the base to the apex.

Hab. Hudson's Bay.

This species closely resembles the *M. unicolor*, but the antennæ are much more clavate; the metathorax is also much more coarsely sculptured.

8. Mimesa antennata. B.M.

Female. Length $4\frac{1}{2}$ lines.—Black: the head smooth and slightly shining; the face and mandibles densely covered with silvery pubescence; the clypeus produced, with an obtuse tooth in the middle; the mandibles ferruginous at their apex; the antennæ longer than the thorax; the flagellum very slender at the base and much thickened at the apex; the cheeks armed with stout curved spines. Thorax smooth and shining; the metathorax rounded behind, with a central impressed line in the middle which runs upwards to the verge of the truncation; wings hyaline, slightly clouded at their apex; the pectus and femora beneath covered with glittering silvery pubescence. Abdomen: the petiole narrowed towards the base; the abdomen very smooth and shining; the apical segment margined at the sides, and covered with scattered punctures and short glittering hairs.

The male closely resembles the female, but has the antennæ less thickened at the apex.

Hab. Sandwich Islands.

Genus 10. DIODONTUS.

Crabro, pt., *Fabr. Ent. Syst.* ii. 293 (1793).
Pemphredon, pt., *Fabr. Syst. Piez.* 314 (1804).

Stigmus, *Latr. Gen. Crust. et Ins.* iv. 84 (1806).
Cemonus, *Jurine, Hym.* 214 (1807).
Diodontus, *Curtis, Brit. Ent.* ii. 496 (1836).

1. Diodontus minutus. B.M.

Crabro minutus, *Fabr. Ent. Syst.* ii. 302. 32.
Pemphredon minutus, *Fabr. Syst. Piez.* 316. 9.
Van d. Lind, Obs. ii. 78. 2.
St. Farg. Hym. iii. 96. 2 ♀ (non ♂).
Sphex pallipes, *Panz. Faun. Germ.* 52. 22?
Cemonus minutus, *Jurine, Hym.* 214.
Stigmus minutus, *Latr. Gen. Crust. et Ins.* iv. 84.
Diodontus minutus, *Curtis, Brit. Ent.* fol. 496.
Shuck. Foss. Hym. 185. 1.
Dahlb. Hym. Europ. i. 252. 152.
Wesm. Hym. Foss. Belg. 121. 2.

Hab. Britain; France; Germany; Italy; Belgium; Sweden; Denmark.

2. Diodontus tristis. B.M.

Pemphredon tristis, *Van d. Lind, Obs.* ii. 76. 1.
Diodontus tristis, *Shuck. Foss. Hym.* 187. 3.
Dahlb. Hym. Europ. i. 249. 149.
Wesm. Hym. Foss. Belg. 120. 1.
Diodontus pallipes, *Dahlb. Hym. Europ.* i. 250. 151.

Hab. Britain; Germany; Belgium; Sweden.

3. Diodontus luperus. B.M.

Diodontus luperus, *Shuck. Foss. Hym.* 186. 2.
Dahlb. Hym. Europ. i. 254. 153.

Hab. Britain; Germany.

4. Diodontus medius.

Diodontus medius, *Dahlb. Hym. Europ.* i. 250. 150.

Hab. Sweden.

Genus 11. CERATOPHORUS.

Pemphredon, *Van d. Lind, Obs.* ii. 82 (1829).
Ceratophorus, *Shuck. Foss. Hym.* 198 (1837).

1. Ceratophorus morio. B.M.

Pemphredon, *Van d. Lind, Obs.* ii. 82. 5 ♀ ♂.
Shuck. Foss. Hym. 198. 3.
Ceratophorus morio, *Shuck. Foss. Hym.* (note) 198.
Dahlb. Hym. Europ. i. 256. 57.
Wesm. Hym. Foss. Belg. 118. 1.

Hab. Britain; Belgium; Sweden.

2. Ceratophorus anthracinus.

Ceratophorus anthracinus, *Smith, Zool. App.* ix. 126.

Hab. Britain (Devon).

Genus 12. CEMONUS.

Pemphredon, pt., *Latr. Gen. Crust. et Ins.* iv. 84 (1806).
Cemonus, *Jurine, Hym.* 214 (1807).

1. Cemonus unicolor. B.M.

Pemphredon unicolor, *Latr. Gen. Crust. et Ins.* iv. 84.
St. Farg. & Serv. Encycl. Méth. x. 48. 3.
Van d. Lind, Obs. ii. 83. 6.
Zett. Ins. Lapp. 441. 2.
Curtis, Brit. Ent. xiv. t. 632.
Cemonus unicolor, *Jurine, Hym.* 214 (2nd Fam. note, without the synonyms).
Shuck. Foss. Hym. 200. 1 ♂ ♀.
Dahlb. Hym. Europ. i. 255. 155.
St. Farg. Hym. iii. 94. 2.
Wesm. Hym. Foss. Belg. 119. 1.

Hab. Britain; France; Germany; Belgium; Lapland.

2. Cemonus lethifer. B.M.

Cemonus lethifer, *Shuck. Foss. Hym.* 201. 2 ♀ ♂.
Dahlb. Hym. Europ. 254. 154.
Wesm. Hym. Foss. Belg. 119. 3.

Hab. Britain; Portugal; Belgium; Sweden.

3. Cemonus rugifer.

Cemonus rugifer, *Dahlb. Hym. Europ.* i. 256. 156; *Synop. Spec.* 507. 3? ♀ ♂.
Wesm. Hym. Foss. Belg. 119. 2.

Hab. Belgium; Sweden; Silesia.

4. Cemonus parallelus.

Stigmus parallelus, *Say*, *Bost. Journ.* i. 378. 1.

Hab. Mexico.

5. Cemonus fraternus.

Stigmus fraternus, *Say*, *Narr. Exped. St. Peter's River, Append.* p. 73.

Hab. Pennsylvania.

6. Cemonus pusillus.

Cemonus? pusillus, *Say*, *Bost. Journ.* i. 378. 2.

Hab. N. America (Indiana).

7. Cemonus inornatus. B.M.

Cemonus inornatus, *Say*, *Narr. Exped. St. Peter's River, Append.* p. 73. 2.

Hab. Pennsylvania. (Coll. E. Doubleday, Esq.)

Genus 13. PSEN.

Psen, *Latr. Précis* (1796).
Sphex, pt., *Fabr. Ent. Syst. Supp.* 243 (1798).
Pelopœus, pt., *Fabr. Syst. Piez.* 202 (1804).
Trypoxylon, pt., *Fabr. Syst. Piez.* 180 (1804).

1. Psen ater. Pl. X. fig. 2. B.M.

Sphex atra, *Fabr. Ent. Syst. Supp.* 244. 18. 19.
Panz. Faun. Germ. 72. 7.
Pelopœus unicolor, *Fabr. Syst. Piez.* 204. 10.
Pelopœus compressicornis, *Fabr. Syst. Piez.* 204. 11 ♂ ♀.
Trypoxylon atratum, *Fabr. Syst. Piez.* 182. 5 ♀.
Psen atra, *Panz. Krit. Revis.* ii. 108.
Psen pallipes, *Spin. Ins. Lig.* i. 94. 2.
Psen serraticornis, *Jurine*, *Hym.* t. 8. gen. 6 ♂.
Psen ater, *Van d. Lind, Obs.* ii. 102. 1.
Latr. Hist. Nat. xiii. 300?
Shuck. Foss. Hym. 225. 1.
St. Farg. Hym. iii. 40. 1.
Mimesa atra, *Dahlb. Hym. Europ.* i. 2. 3.
Mesopora ater, *Wesm. Hym. Foss. Belg.* 116. 6.

Hab. Britain; France; Italy; Germany; Belgium; Scandinavia.

M. Wesmael has proposed the removal of this species from the genus *Psen*, in consequence of a difference in the neuration of the posterior wings. Throughout this catalogue the determination of the genera has been established on the neuration of the anterior wings in connexion with other characters.

2. Psen pallipes. B.M.

Sphex pallipes, *Panz. Faun. Germ.* 52. 22 ♂.
Trypoxylon atratum, *Panz. Faun. Germ.* 98. 15.
Psen atra, *Panz. Krit. Revis.* ii. 109.
Psen atratus, *Van d. Lind, Obs.* ii. 103. 2.
Shuck. Foss. Hym. 227. 2.
Dahlb. Hym. Europ. i. 5. 6.
St. Farg. Hym. iii. 40. 1.
Wesm. Hym. Foss. Belg. 116. 1.

Hab. Britain; France; Germany; Belgium; Sweden; Finland.

3. Psen fuscipennis.

Psen fuscipennis, *Dahlb. Hym. Europ.* i. 5. 7 ♀.

Hab. Scandinavia.

4. Psen medius. B.M.

Male. Length 3 lines. — Head black, closely punctured; the face covered with silvery pubescence; the mandibles and flagellum beneath rufo-fulvous. Thorax black, strongly punctured, the punctures confluent in the middle of the disk; the metathorax very coarsely rugose; the sides and beneath the thorax with a short glittering pubescence; the tubercles, tegulæ, extreme base of the wings, anterior and intermediate legs, and the posterior tibiæ and tarsi, rufo-fulvous; the intermediate femora with a dark stain beneath; the wings hyaline and beautifully iridescent. Abdomen black, with the apical margin of the first segment and the second entirely red; the petiole wider at its extremity than at its base; the apical margins of the third and following segments rufo-piceous; the entire abdomen has a thin silky pile; beneath, coloured the same as above.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

This insect has exactly the appearance of *M. bicolor*, but it differs considerably from it in sculpture, and the neuration of its wings is that of *Psen*: it appears to form a connecting link between the two genera.

5. Psen concolor.

Psen concolor, *Dahlb. Hym. Europ.* i. 6. 8.

Hab. Gothland.

Genus 14. CERCERIS.

Sphex, pt., *Linn. Faun. Suec.* no. 1660 (1761).
Crabro, pt., *Fabr. Syst. Ent.* 374 (1775).
Vespa, pt., *Harris, Expos.* 127 (1776).
Philanthus, pt., *Fabr. Ent. Syst.* ii. 288 (1793).
Cerceris, *Latr. Hist. Nat. Crust. et Ins.* xiii. (1804).
Diamma & Didesmus, *Dahlb. Hym. Europ.* i. 225 & 502 (1843–5).

1. Cerceris arenaria. B.M.

Sphex arenaria, *Linn. Fn. Suec.* 413. 1660; *Syst. Nat.* i. 946. 31 ♀.
Villers, Ent. iii. 235. 38.
Vespa exultus & petulans, *Harris, Expos.* t. 37. f. 1. 2 ♂ ♀.
Crabro 5-cinctus, *Fabr. Mant.* i. 295. 11 ♂.
Oliv. Encycl. Méth. vi. 514. 13.
Schrank, Faun. Boic. ii. 335. 2182.
Crabro arenarius, *Fabr. Mant.* i. 297. 20.
Philanthus arenarius, *Fabr. Ent. Syst.* ii. 290. 5; *Syst. Piez.* 303. 9.
Philanthus lætus, *Fabr. Ent. Syst.* ii. 291. 10; *Syst. Piez.* 305. 18.
Panz. Faun. Germ. 63. 11.
Cerceris aurita, *Fabr. Ent. Syst. Supp.* 268. 1.
Latr. Hist. Nat. xiii. 315. 1.
Spin. Ins. Ligur. i. 96. 1.
Cerceris læta, *Curtis, Brit. Ent.* vi. fol. 269. t. 269 ♀.
Cerceris arenaria, *Van d. Lind, Obs.* ii. 109. 3.
Shuck. Foss. Hym. 233. 1.
Dahlb. Hym. Europ. 205. 122.
St. Farg. Hym. iii. 16. 11.
Wesm. Hym. Foss. Belg. 100. 1.

Hab. Britain; France; Italy; Germany; Austria; Belgium.

2. Cerceris ornata. B.M.

Philanthus ornatus, *Fabr. Ent. Syst.* ii. 290. 6; *Syst. Piez.* 304. 11.
Panz. Faun. Germ. 63. 10; *Krit. Revis.* ii. 174.
Crabro variabilis, *Schrank, Faun. Boic.* ii. 339. 2190.
Philanthus semicinctus, *Panz. Faun. Germ.* 47. 24.
Cerceris ornata, *Latr. Hist. Nat.* xiii. 317. 3; *Nouv. Dict.* ed. 2. v. 512.

Cerceris ornata, *Walck. sur le genre Halict.* 80.
Van d. Lind, Obs. ii. 117. 13.
Shuck. Foss. Hym. 239. 4.
Wesm. Hym. Foss. Belg. 105. 6.
Cerceris variabilis, *Dahlb. Hym. Europ.* i. 196. 118.

Hab. Britain; France; Germany; Belgium; Sweden; Finland; Scandinavia; Algeria.

3. Cerceris interrupta. B.M.

Crabro 5-fasciatus, *Rossi, Faun. Etrus. Mant.* i. 139. 207?
Philanthus quinquecinctus, *Panz. Faun. Germ.* 63. 12 ♂, nec *Fabr.*
Philanthus interruptus, *Panz. Faun. Germ.* 63. 17 ♀.
Philanthus ruficornis, *Fabr. Ent. Syst.* ii. 292. 11?
Cerceris 5-fasciata, *Van d. Lind, Obs.* ii. 115. 9 (teste *Wesm.*).
Wesm. Hym. Foss. Belg. 103. 4.
Cerceris interrupta, *Shuck. Foss. Hym.* 238. 3.
St. Farg. Hym. iii. 7. 4.
Cerceris nasuta, *Dahlb. Hym. Europ.* i. 215. 128.
Cerceris subdepressa, *St. Farg. Hym.* iii. 12. 7?

Hab. Britain; France; Italy; Germany; Belgium; Sweden.

4. Cerceris labiata. B.M.

Crabro labiatus, *Fabr. Ent. Syst.* ii. 296. 11 ♀.
Crabro cunicularius, *Schrank, Faun. Boic.* ii. 335. 2183.
Crabro bidens, *Schrank, Faun. Boic.* ii. 335. 2183.
Philanthus labiatus, *Panz. Faun. Germ.* 63. 16 ♀.
Fabr. Syst. Piez. 303. 10.
Philanthus arenarius, *Panz. Faun. Germ.* 46. 2 ♂.
Cerceris nasuta, *Latr. Gen. Crust. et Ins.* iv. 94 ♂ ♀.
Cerceris labiata, *Van d. Lind, Obs.* ii. 111. 5.
Shuck. Foss. Hym. 236. 2.
Dahlb. Dispos. 16. 123; *Hym. Europ.* i. 217. 129.
Wesm. Hym. Foss. Belg. 104. 5.

Hab. Britain; France; Italy; Germany; Austria; Belgium; Sweden; Finland.

5. Cerceris emarginata. B.M.

Philanthus emarginatus, *Panz. Faun. Germ.* 63. 19.
Cerceris variabilis, *Dahlb. Hym. Europ.* i. 196. 118 (var.).

Hab. Britain; Austria; Albania; Sicily.

This species differs so much from all the recorded varieties of

C. ornata, that, without connecting links, it appears to be specifically distinct; several examples from Devonshire are in the Museum, all agreeing in having the legs entirely yellow, dashed with ferruginous, a large ovate macula on the sides of the metathorax, and four yellow emarginate bands on the abdomen; they agree with *C. ornata* in having a semicircular carina at the base of the second segment beneath.

6. Cerceris sabulosa. B.M.

Philanthus sabulosus, *Panz. Faun. Germ.* 63. 13 ♂.
Philanthus quadricinctus, *Panz. Faun. Germ.* 63. 15 ♀.
Cerceris fasciata, *Spin. Ins. Ligur.* i. 97. 2 ♀.
Cerceris quadricincta, *Latr. Hist. Nat.* xiii. 316. 2.
Van d. Lind, Obs. ii. 144. 8.
Shuck. Foss. Hym. 243. 5.
Dahlb. Hym. Europ. i. 212. 126 (nec var. β).
St. Farg. Hym. iii. 23. 15.
Lucas, Explo. Sc. Algér. iii. 254.
Wesm. Hym. Foss. Belg. 102. 3.
Cerceris cincta, *Dahlb. Hym. Europ.* i. 204?

Hab. Britain; France; Italy; Sicily; Germany; Belgium.

7. Cerceris bidentata.

Cerceris bidentata, *St. Farg. Hym.* iii. 9. 5.

Hab. France (Paris).

8. Cerceris brevirostris.

Cerceris brevirostris, *St. Farg. Hym.* iii. 13. 8.

Hab. France (Paris).

9. Cerceris buprestícida.

Cerceris buprestícida, *Dufour, Ann. des Sci. Nat. Zool.* 2nd ser. xv. 370. t. 11. f. 1 ♀.
Dahlb. Hym. Europ. Synop. Spec. i. 498.

Hab. South of France; Spain.

10. Cerceris frontalis.

Cerceris argentifrons, *St. Farg. Hym.* iii. 25. 17 ♂ ♀ (nec *Guér.*).

Hab. France (St. Sévres).

This is probably only a variety of *C. ornata*.

11. Cerceris minuta.

Cerceris minuta, *St. Farg. Hym.* iii. 27. 18 ♂ ♀.

Hab. France (St. Sévres).

12. Cerceris tuberculata. B.M.

Sphex tuberculata, *Vill. Ent.* iii. 253. 95.
Philanthus rufipes, *Fabr. Ent. Syst.* ii. 290. 4; *Syst. Piez.* 303. 8.
Cerceris vespoides, *Illig. Faun. Etrus. Mant.* ii. 133. 859.
Cerceris major, *Spin. Ins. Ligur.* ii. 50. t. 1. f. 2 *a. b* ♀, *c* ♂.
Germ. Faun. Europ. 12. 22.
Drap. Ann. Sc. Phys. i. 297. 24.
Cerceris tuberculata, *Germ. Reise n. Dalm.* 281. 354.
Van d. Lind, Obs. ii. 108. 2.
Dahlb. Hym. Europ. i. 220. 131.
St. Farg. Hym. Europ. iii. 10. 6.

Hab. France; Italy; Dalmatia; Albania; Belgium; Spain.

13. Cerceris Fargeii.

Cerceris Dufourii, *St. Farg. Hym.* iii. 14. 9 ♀ (nec *Guér.*).

Hab. France (St. Sévres).

14. Cerceris Ferrei. B.M.

Cerceris Ferrei, *Van d. Lind, Obs.* ii. 112. 6 ♀.
St. Farg. Hym. iii. 4. 2 ♂ ♀.
Dahlb. Hym. Europ. i. 219. 103.

Hab. South of France; Albania.

15. Cerceris nitida.

Cerceris nitida, *Wesm. Hym. Foss. Bely.* 100. 2 ♀.

Hab. Belgium.

16. Cerceris hortorum. B.M.

Cerceris hortorum, *Panz. Faun. Germ.* 63. 9.

Hab. Germany; Dalmatia.

This may probably be a mere variety of *C. emarginata*. Some specimens of the female from Dalmatia have merely a lateral yellow square spot on the third segment of the abdomen and a minute one on the fifth, the latter frequently obsolete.

17. Cerceris annulata. B.M.

Crabro annulatus, *Rossi, Faun. Etrus. Append.* 123. 109.
Vespa annulata, *Rossi, Faun. Etrus.* (ed. *Illig.*) ii. 145. 874.
Cerceris annulata, *Van d. Lind, Obs.* ii. 115. 10.
Dahlb. Hym. Europ. i. 214. 127.

Hab. Italy.

18. Cerceris albo-fasciata.

Crabro albo-fasciata, *Rossi, Faun. Etrus. Mant.* ii. 138. 306.
Vespa albo-fasciata, *Rossi, Faun. Etrus.* (ed. *Illig.*) ii. 143.
Cerceris albo-fasciata, *Van d. Lind, Obs.* ii. 116. 12.
Dahlb. Hym. Europ. i. 201. 119.
Cerceris tricincta, *Spin. Ins. Ligur.* i. 27. 11. t. 1. f. 9 ♂.
Van d. Lind, Obs. ii. 116. 11.

Hab. Italy; Tuscany; Prussia.

19. Cerceris albo-notata. B.M.

Cerceris albo-notata, *Spin. Ins. Ligur.* i. 99. 5.
Van d. Lind, Obs. ii. 120. 17.
Dahlb. Hym. Europ. i. 203. 121.

Hab. Italy; Dalmatia; Albania.

20. Cerceris modesta. B.M.

Female. Length 3½ lines.—Black, closely punctured: the sides of the face, two minute spots on the clypeus (sometimes obsolete), the mandibles and scape in front, pale yellow; the flagellum fulvous beneath; the tips of the mandibles ferruginous. Thorax: a spot on each side of the collar, another on the tegulæ and the post-scutellum, yellowish-white; the subcordiform space at the base of the metathorax punctured; the wings slightly coloured, with a darker cloud at their apical margins, the nervures ferruginous; the anterior femora at their apex in front and the tibiæ and tarsi pale yellow, the posterior tibiæ with a fuscous stain at their apex within. Abdomen: the first segment of the abdomen ferruginous; the third and fifth segments with a large pale yellow macula on each side, pointed within; the spots on the fifth segment uniting or usually subinterrupted.

The male differs in having the face yellow below the antennæ, and in having the basal segment of the abdomen black.

Hab. Albania.

21. Cerceris flavicornis. B.M.

Cerceris flavicornis, *Brullé, Expéd. Sc. de Morée*, iii. 373. 824. t. 51. f. 3.

Hab. The Morea; Albania.

22. Cerceris capitata.

Female. Length 6½–7 lines.—Black, closely punctured: the head wider than the thorax; the clypeus produced at its apex and rounded, not elevated, but curving slightly upwards; a large spot behind the eyes, two small ones on the vertex, the scape in front, a large ovate spot on the clypeus, a small one on each side, the sides of the face as high as the antennæ, and a spot at the base of the mandibles, yellow; the mandibles ferruginous; the flagellum fulvous beneath. Thorax: an interrupted line on the collar, the tegulæ, a minute spot on each side of the scutellum, the post-scutellum, and an angular spot on each side of the metathorax, yellow; the wings slightly coloured, a darker cloud at the apical margins of the anterior pair, the nervures ferruginous; the subcordiform space at the base of the metathorax roughly punctured; the legs of a reddish-yellow, with the tarsi, the tibiæ, and femora in front, yellow; the coxæ rufo-fuscous. Abdomen: the first segment with a yellow spot on each side, the three following with a subinterrupted fascia on their apical margins, widest at the sides; the fifth segment yellow, with an angular black spot in the middle of its base; beneath black, with the middle of the segments rufo-piceous.

Hab. Albania. (Coll. W. W. Saunders, Esq.)

23. Cerceris trifasciata. B.M.

Female. Length 5 lines.—Black: the head and thorax strongly punctured; the face, below the insertion of the antennæ, yellow; the margins of the clypeus and the triangular spot above it, black; the mandibles yellow, with their tips black; the basal joints of the flagellum ferruginous beneath, the tip ferruginous. Thorax: the tegulæ black, smooth and shining; the wings slightly coloured, the nervures ferruginous, the anterior margin of the fore-wings clouded towards their apex; the anterior and intermediate tibiæ and tarsi yellow, the latter slightly ferruginous; the posterior tibiæ and tarsi ferruginous. Abdomen punctured, the two basal segments strongly so, the three following much more finely so and shining; the apex of the fifth and the sixth strongly punctured; the second, third and fourth segments with a narrow

yellow fascia on their apical margins, slightly attenuated in the middle.

Hab. Polish Ukraine.

24. Cerceris rufipes. B.M.

Female. Length 6 lines.—Black, strongly punctured: an ovate spot above the clypeus, opposite to which, on each side of the face, touching the orbit of the eyes, a larger spot, and a very minute one at the base of the clypeus, yellow; a minute yellow spot behind the eyes. Thorax: a yellow spot on the tegulæ in front; the wings fusco-hyaline; the legs ferruginous, the posterior tibiæ and tarsi dashed with yellow. Abdomen: a small yellow spot on each side of the first segment; a narrow yellow band on the second, third and fourth segments, very slightly interrupted and narrowed in the middle, and a broader one on the fifth, slightly narrowed in the middle; beneath, immaculate.

Hab. Polish Ukraine.

25. Cerceris citrinella. B.M.

Female. Length 4½ lines.—Pale yellow, thickly and strongly punctured: a transverse black stripe between the eyes, enclosing the ocelli, from which two narrower lines run downwards to the insertion of the antennæ; the tips of the mandibles rufo-piceous. The prothorax black anteriorly; the mesothorax with three longitudinal black stripes which unite with a transverse one at the base; a black spot behind the tegulæ; the wings hyaline, their nervures pale ferruginous; the posterior legs with ferruginous stains. Abdomen: the apical and basal margins of the segments narrowly and slightly ferruginous, the apical segment entirely so; beneath, the apical margins only ferruginous.

Hab. Siberia.

26. Cerceris flaviventris.

Cerceris flaviventris, *Van d. Lind, Obs.* ii. 107. 1.
Dahlb. Hym. Europ. i. 195. 117.

Hab. Spain.

27. Cerceris concinna.

Cerceris concinna, *Brullé, Hist. Nat. Il. Canar.* iii. 90. 48.

Hab. Canary Islands.

28. Cerceris semirufa. B.M.

Female. Length 5¼ lines.—Black: the head not very strongly

or thickly punctured; the antennæ ferruginous, with the apical half of the flagellum fuscous above; the face below the antennæ yellow; the margins of the clypeus and the carina above, black; the mandibles yellow, with their tips rufo-piceous. Thorax delicately punctured, the metathorax more strongly so; the collar with an interrupted stripe, the tegulæ, scutellum and post-scutellum, yellow; the wings hyaline, the nervures ferruginous; the legs ferruginous. Abdomen: the three basal segments rufous, the three apical ones black; the first segment punctured at the base, the intermediate segments nearly impunctate, the apical ones sparingly punctured; the apical margins of the third, fourth and fifth segments with a narrow pale yellow fascia, slightly attenuated in the middle; a spot on the margin of the second segment, laterally.

Hab. Siberia.

29. Cerceris truncatula.

Cerceris truncatula, *Dahlb. Hym. Europ.* i. 210. 124 (var. interrupta?).

Hab. Sweden.

This is probably a mere variety of *C. interrupta*: the females sometimes have the clypeus slightly elevated.

30. Cerceris spinipectus. B.M.

Female. Length 8 lines.—Head yellow, with the cheeks beneath and the maxillæ black; a black spot on the vertex touching the orbit of the eyes, its hinder margin curved; in front are two black lines emanating from it and running down to the base of each antenna; two obliquely placed spots behind the posterior stemmata; the tips of the mandibles black. Thorax black; the collar, tubercles, two spots beneath the wings, the tegulæ, scutellum and post-scutellum, and a large ovate macula on each side of the metathorax, yellow; wings hyaline, a fuscous cloud occupying the marginal cell, extending a little beneath it and passing round the apical margins of the wings, the nervures pale rufo-testaceous; the mesosternum swollen and produced laterally, where it is armed with a spine in the middle, and a second at its postero-apical margin; the legs orange-yellow. Abdomen yellow, the extreme basal margin of the segments black; beneath, immaculate:—the entire insect strongly punctured.

Male. Length 6 lines.—Very closely resembles the other sex,

but the basal margins of the abdomen are merely rufo-piceous, not black.

Hab. Trebizond.

This species closely resembles the *C. pulchella* of Klug, but is at once distinguished by having the anterior margin of the clypeus rounded; in *C. pulchella* it is emarginate its entire width.

31. Cerceris insularis.

Female. Length 6 lines.—Black: the face and mandibles reddish-yellow, the tips of the latter rufo-piceous; a large ferruginous spot beneath the wings; the scape yellow, the flagellum fulvous towards the base. Thorax: a broad stripe on the collar, a lunate spot beneath the wings, with a minute one beneath it, the tegulæ, hinder margin of the scutellum, the post-scutellum, and the sides of the metathorax, yellow; the subcordate space at the base of the metathorax longitudinally striated; wings fulvo-hyaline, a faint cloud occupying the marginal cell and extending to the apex of the wings. Abdomen: the apical margins of the segments with yellow marginal bands; the first and second notched in the middle, the third and fourth widely emarginate; the fifth segment yellow, with an angular black spot in the middle of its base: beneath, rufo-piceous; a broad, yellow, slightly interrupted band in the middle of the second, third and fourth segments; two minute yellow spots on the fifth segment.

Hab. Sicily. (Coll. F. Smith.)

32. Cerceris insignis.

Cerceris insignis, *Klug, Symb. Phys.* dec. v. t. 47. f. 12 ♀.

Hab. Arabia.

33. Cerceris vidua.

Cerceris vidua, *Klug, Symb. Phys.* dec. v. t. 47. f. 11 ♂.

Hab. Arabia.

34. Cerceris dispar.

Cerceris dispar, *Dahlb. Hym. Europ. Synop. Spec.* i. 499. 9.

Hab. Egypt.

35. Cerceris erythrocephala.

Cerceris erythrocephala, *Dahlb. Hym. Europ. Synop. Spec.* 502. 27.

Hab. Egypt.

36. Cerceris excellens.

Cerceris excellens, *Klug, Symb. Phys.* dec. v. t. 47. f. 15 ♂.

Hab. Lower Egypt (Sakkara).

37. Cerceris histrio.

Cerceris histrio, *Dahlb. Hym. Europ. Synop. Spec.* i. 499. 11.

Hab. Egypt.

38. Cerceris histrionica.

Cerceris histrionica, *Klug, Symb. Phys.* dec. v. t. 47. f. 9 ♂ ♀.

Hab. Lower Egypt (Sakkara).

39. Cerceris Klugii.

Cerceris annulata, *Klug, Symb. Phys.* dec. v. t. 47. f. 13 ♂ (nec *Rossi*).

Hab. Egypt.

40. Cerceris pulchella. B.M.

Cerceris pulchella, *Klug, Symb. Phys.* dec. v. t. 47. f. 14 ♂.

Hab. Egypt. (Coll. F. Smith.)

41. Cerceris solitaria.

Cerceris solitaria, *Dahlb. Hym. Europ. Synop. Spec.* i. 502. 26.

Hab. Egypt.

42. Cerceris albicincta.

Cerceris albicincta, *Klug, Symb. Phys.* dec. v. t. 47. f. 10 ♂.

Hab. Ethiopia (Ambukohl).

43. Cerceris abdominalis. B.M.

Philanthus abdominalis, *Fabr. Ent. Syst.* 306. 24.
Cerceris rufiventris, *St. Farg. Hym.* iii. 29. 20.
Lucas, Explo. Sc. Algér. iii. 255. t. 13. f. 3.

Hab. Tangiers; Algeria (Oran).

This species is subject to considerable variation in the markings; the head is frequently immaculate as well as the abdomen.

44. Cerceris capito. B.M.

Cerceris capito, *St. Farg. Hym.* iii. 15. 10 ♂ ♀.
Lucas, Explo. Sc. Algér. 251. t. 12. 9.

Hab. Algeria (Oran).

45. Cerceris clitellata.

Cerceris clitellata, *St. Farg. Hym.* iii. 28. 19.
Lucas, Explo. Sc. Algér. iii. 255. t. 13. f. 2.

Hab. Algeria (Oran).

46. Cerceris fasciata. B.M.

Cerceris fasciata, *St. Farg. Hym.* iii. 30. 21.
Lucas, Explo. Sc. Algér. iii. 256. t. 13. f. 6.

Hab. Algeria (Oran).

47. Cerceris foveata.

Cerceris foveata, *St. Farg. Hym.* iii. 31. 22.
Lucas, Explo. Sc. Algér. iii. 257. t. 13. f. 5.

Hab. Algeria (Oran).

48. Cerceris laticincta. B.M.

Cerceris laticincta, *St. Farg. Hym.* iii. 18. 12 ♂.
Lucas, Explo. Sc. Algér. iii. 252. t. 12. f. 10.

Hab. Algeria (Oran).

49. Cerceris Lindenii.

Cerceris Lindenii, *St. Farg. Hym.* iii. 19. 13.
Lucas, Explo. Sc. Algér. iii. 253. t. 12. f. 11.

Hab. Algeria (Oran).

50. Cerceris nasuta. B.M.

Cerceris nasuta, *St. Farg. Hym.* iii. 6. 3 ♂ ♀.
Lucas, Explo. Sc. Algér. iii. 250. t. 12. f. 8.

Hab. Algeria; Port Natal.

51. Cerceris vittata.

Cerceris vittata, *St. Farg. Hym.* iii. 24. 16 ♀.
Lucas, Explo. Sc. Algér. iii. 254. t. 13. f. 1.

Hab. Algeria (Oran).

52. Cerceris bicolor.

Female. Length 5½ lines.—The head and thorax black, the legs and abdomen ferruginous; the head and thorax closely but not coarsely punctured; the clypeus elevated from its base, convex above, with a transverse yellow spot; the sides of the face and the carina between the antennæ, yellow; the basal half of the mandibles and a minute spot behind the eyes, yellow; a spot on each side of the collar, and another on the tegulæ, yellow; wings dark fuscous, with a violet iridescence. The abdomen sparingly punctured, an indistinct yellow line on the apical margin of the first segment.

Hab. The Gambia. (Coll. F. Smith.)

53. Cerceris tyrannica.

Female. Length 5 lines.—Black and punctured: the face and a large spot behind the eyes yellow, the latter forming a tridentate shape above the antennæ; the hinder margin of the vertex ferruginous, with two yellow spots in the middle; the mandibles yellow and also the scape in front; the antennæ ferruginous, tips of the mandibles black. Thorax: the collar, sides of the thorax beneath the wings, the tegulæ, scutellum, post-scutellum and the sides of the metathorax, yellow; wings hyaline, the nervures ferruginous; the apical margins with a dark fuscous cloud; the legs ferruginous, with a large, ovate, yellow macula on each side of the segments, occupying nearly their entire width; the apical segment yellow; the space between the spots on the basal segment black; beneath ferruginous.

Hab. The Gambia. (Coll. F. Smith.)

54. Cerceris fossor.

Male. Length 5 lines.—Head and thorax black, coarsely punctured; the face ferruginous, with a yellow spot on the anterior margin of the clypeus, and a smaller one at the anterior angles of the face; the scape yellow in front; the mandibles yellow, with their apex rufo-piceous. Thorax: an interrupted line on the collar, a spot on the tegulæ in front, the post-scutellum, and a minute spot on each side of the metathorax, yellow; wings fusco-hyaline, with a purple iridescence, the subcordate space at the base of the metathorax transversely striated, the metathorax swollen at the sides; a yellow spot at the apex of the anterior femora outside; the tibiæ and tarsi yellow, the apical joints of the latter slightly ferruginous; the intermediate legs have the apex of the coxæ, the trochanters, the tibiæ and tarsi yellow; the posterior legs, with the coxæ, trochanters, and

base of the femora, yellow. Abdomen ferruginous; the basal segment black, with a narrow yellow line on the apical margin.

Hab. The Gambia. (Coll. F. Smith.)

55. Cerceris flavifrons.

Male. Length 4½ lines.—Head and thorax black, closely punctured; the face, scape in front, and the mandibles pale yellow; a minute yellow spot behind the eyes; the flagellum fulvous towards the base. Thorax: an interrupted line on the collar, a spot on the tegulæ in front, two spots on the scutellum, the post-scutellum, and a large oblong macula on each side of the metathorax and the legs, yellow; the femora above rufo-piceous, the tarsi and the posterior tibiæ slightly ferruginous; the wings fusco-hyaline, with a violet iridescence. Abdomen pale ferruginous, with a yellow line on the posterior margin and at the sides.

Hab. West Africa. (Coll. F. Smith.)

56. Cerceris Perboscii.

Cerceris Perboscii, *Guér. Icon. Règ. Anim.* 444.

Hab. Senegal.

57. Cerceris picta.

Cerceris picta, *Dahlb. Hym. Europ.* i. 222.

Hab. Senegal.

58. Cerceris fulviventris.

Cerceris fulviventris, *Guér. Icon. Règ. Anim.* p. 444; *Voy. Abyss. Lefeb.* vi. 358.

Hab. Senegal; Abyssinia; Gambia. (Coll. F. Smith.)

59. Cerceris luxuriosa.

Cerceris luxuriosa, *Dahlb. Hym. Europ. Synop. Spec.* i. 498.

Hab. Abyssinia (Syrkut).

60. Cerceris Syrkuti.

Cerceris Syrkuti, *Dahlb. Hym. Europ. Synop. Spec.* i. 502. 28.

Hab. Syrkut (Abyssinia?).

61. Cerceris formosa. B.M.

Cerceris formosa, *Dahlb. Hym. Europ. Synop. Spec.* 499. 12.

Hab. Port Natal.

62. Cerceris raptor. B.M.

Female. Length 4 lines.—Black and punctured; the clypeus, sides of the face, the carina between the antennæ, the scape in front, and the mandibles, yellow; the flagellum fulvous beneath. Thorax: a spot on each side of the collar, another in front of the tegulæ, and the post-scutellum, yellow; the anterior and intermediate femora yellow beneath, except at their base; the tibiæ and tarsi yellow, a black spot at the tip of the posterior tibiæ within, and the four apical joints of the tarsi fuscous; wings hyaline, with a black spot at the apex of the anterior pair. Abdomen: a transverse yellow spot at the base of the second segment; the third segment yellow, with a deep emargination in front; the fifth segment yellow, with a similar emargination to that of the fifth segment; the third segment beneath yellow at the sides, and the apical margin with a narrow yellow band.

Hab. West Africa (Whydah).

This species very closely resembles the *C. ornata*, but is more deeply punctured, and is at once distinguished by the black spot on the wings: otherwise they approach very closely.

63. Cerceris rigida. B.M.

Male. Length 4 lines.—Black: the face below the antennæ, the scape in front and the mandibles, yellow; the scape above and the flagellum rufo-piceous. Thorax and abdomen covered with large deep confluent punctures; the post-scutellum, a spot on the tegulæ in front, and another on each side of the metathorax, yellow; the wings hyaline, with a dark cloud at their apical margins; the legs yellow, the anterior and intermediate femora with a black stripe at their base above, the posterior femora and tibiæ black above, with their base and apex rufo-piceous, the posterior tarsi rufo-piceous. Abdomen: the basal segment with a spot on each side, the following segment with an interrupted yellow line on its apical margin, the fourth and fifth usually entire.

Hab. Port Natal.

64. Cerceris lunigera.

Cerceris lunigera, *Dahlb. Hym. Europ. Synop. Spec.* i. 499.

Hab. Cape of Good Hope.

65. Cerceris albifrons.

Male. Length 4 lines.—Black, closely punctured: the face

white; the flagellum fulvous beneath. Thorax: a white spot on the tegulæ in front; the tibiæ and tarsi pale testaceous, the femora rufo-testaceous as well as the posterior tibiæ and tarsi; wings fulvo-hyaline and iridescent. Abdomen: the basal segment ferruginous, the third segment with a narrow white marginal fascia.

Hab. Africa. (Coll. F. Smith.)

66. Cerceris militaris.

Cerceris militaris, *Dahlb. Hym. Europ.* i. 224.

Hab. Africa.

67. Cerceris nigrifrons. B.M.

Male. Length 4½ lines.—Black, punctured: the scape in front, a short carina between the antennæ, and two minute spots on the face, yellow; the flagellum beneath, and the mandibles ferruginous, the apex of the former fuscous. Thorax coarsely punctured; the tegulæ yellow in front; the wings slightly coloured, with a fuscous cloud at their apical margins, that on the fore wings occupying the marginal cell, and darkest from thence to the apex of the wing; the legs ferruginous, with the anterior and intermediate tibiæ in front, and the basal joint of the tarsi pale testaceous; the tibiæ have a dark fusco-ferruginous stain behind; the apical joints of the tarsi fuscous above. Abdomen: the basal segment ferruginous; the second narrowed at the base, the third with a yellow band at its apical margin, the sixth entirely yellow; beneath, the second segment shining, with large scattered punctures; the following segments have some coarse punctures at the sides; the third has a yellow band at its apical margin.

Hab. Africa.

68. Cerceris argentifrons.

Cerceris argentifrons, *Guér. Icon. Règ. Anim.* 445.

Hab. Madagascar.

69. Cerceris nigro-cincta. B.M.

Female. Length 5 lines.—Black: the head, thorax, and basal segment of the abdomen, coarsely punctured; the second, third and fourth segments more finely and distantly punctured; the fifth more strongly so, as well as the sides of the sixth segment; the latter transversely rugose above. The clypeus, a large spot on each side of the face, and the scape in front, yellow, some-

times of an orange colour; the flagellum fulvous beneath; the mandibles of a reddish-yellow, with their tips rufo-piceous. Thorax: a spot on each side of the collar, the tegulæ, post-scutellum, and legs, orange; the second segment of the abdomen, the fourth and following segments orange; the first and third black.

Hab. Australia (Adelaide).

70. Cerceris antipodes. B.M.

Female. Length 4 lines.—Black, punctured: the clypeus, sides of the face, the mandibles, and the carina between the antennæ, yellow; the flagellum fulvous beneath; a minute yellow spot behind the eyes. Thorax immaculate; the tegulæ fulvous; the wings slightly coloured with a fuscous cloud at the anterior margin of the superior pair towards their apex; the nervures ferruginous; the legs fulvo-ferruginous; the basal joint of the intermediate tarsi yellow; the posterior pair slightly fuscous; the coxæ and base of the femora black. Abdomen: the second, fourth and fifth segments of an orange-yellow; the fourth segment more or less black at the base; beneath, the base of the segments rufo-piceous.

Male.—This sex differs in having the scape yellow in front, two minute spots on the vertex, two spots on the collar, two on the scutellum, the post-scutellum, and two minute spots on the metathorax, orange-yellow; the sixth and seventh segments yellow.

Hab. Australia.

71. Cerceris bifasciata.

Cerceris bifasciata, *Guér. Icon. Règ. Anim.* 443. t. 71. f. 9.

Hab. Bengal.

72. Cerceris flavo-picta. B.M.

Female. Length 4–4½ lines.—Head yellow, the vertex black, with a transverse yellow line behind, and a black stripe running downwards to each antenna; the clypeus projecting, the apex truncate; the antennæ ferruginous, with the scape yellow in front; the tips of the mandibles black. Thorax yellow, the disk of the mesothorax black, a black line behind the wings, running downwards obliquely to the posterior coxæ; a central black stripe down the metathorax, the subcordiform space at the base of the metathorax smooth and shining; the wings hyaline, with a dark fuscous spot at the apex of the anterior pair: legs

yellow, the intermediate and posterior pairs slightly stained with ferruginous. Abdomen yellow, the basal margin of the segments black, and a black line running down the middle of the four basal segments, narrowest on the first and fourth; beneath, pale ferruginous, with a yellow macula on each side of the second and two following segments.

The male differs in not having the clypeus elevated, and in being of a paler yellow; the apex of the posterior femora and tibiæ have a fuscous spot, and the bands on the abdomen are very slightly interrupted.

Hab. Northern India.

73. Cerceris hilaris. B.M.

Female. Length 5½ lines.—Black and punctured; an oblong spot on each side of the face, a transverse lunate one on the clypeus, which is elevated, and the base of the mandibles, yellow; a yellow spot behind the eyes; the anterior margin of the clypeus deeply emarginate; the scape more or less yellow in front. Thorax: an interrupted line on the collar, a line, or two spots on the scutellum, the post-scutellum, and a large ovate macula on each side of the metathorax, yellow; the wings slightly coloured, the anterior pair with a fuscous cloud at their apical margins; the legs ferruginous. Abdomen: the first segment with a broad emarginate fascia on its apical margin; the four following segments with a narrow yellow fascia on their apical margins; the fascia bordered anteriorly with ferruginous, the second segment almost entirely ferruginous; beneath, similarly coloured, but less brightly.

Hab. Northern India.

73 *a*. Cerceris interstincta.

Crabro interstincta, *Fabr. Ent. Syst. Supp.* 269. 11.
Cerceris interstinctus, *Fabr. Syst. Piez.* 306. 21.

Hab. India.

74. Cerceris instabilis. B.M.

Female. Length 4½ lines.—Head black and punctured; the hinder margin of the vertex and the cheeks ferruginous; the mandibles, scape in front, face below the antennæ, and the carina between them, yellow; sometimes a line above the carina terminating at the anterior ocellus also yellow; the flagellum ferruginous. Thorax ferruginous; the collar, scutellum, post-scutellum, and the apex of the metathorax more or less, yellow;

the anterior and posterior margins of the mesothorax beneath, black; sometimes a yellow spot beneath the wings; the wings hyaline, with a dark fuscous spot at the apex of the anterior pair, the nervures ferruginous; the legs ferruginous, variegated with yellow. Abdomen ferruginous; a transverse spot at the base of the second segment, the third and fifth segments, yellow; the third segment has sometimes a broad emarginate band, the emargination being black or ferruginous; the extreme base of the segments usually black.

The male closely resembles the female, but the colours are brighter; the mesothorax is usually more or less black; the subcordate space at the base of the metathorax is black in both sexes and striated; the legs are more variegated with yellow and the posterior tibiæ are fuscous at their apex.

Hab. India; China.

This species varies considerably in the colouring, scarcely two individuals being exactly alike; in some examples the vertex is black, with one or two ferruginous stripes; others are entirely ferruginous, with yellow spots and bands.

75. CERCERIS MASTOGASTER. B.M.

Female. Length 6 lines.—Black, punctured: the scape in front, the clypeus, sides of the face, the carina between the antennæ and the base of the mandibles, yellow; the flagellum fulvous beneath; the head has a thin hoary pubescence, that on the clypeus more bright and silvery. Thorax: a spot on each side of the collar, the post-scutellum, and a spot on the tegulæ, cream-coloured; wings slightly coloured, with a dark cloud or spot beyond the marginal cell; the nervures fusco-testaceous; the tibiæ and tarsi of a yellowish-white, the anterior and intermediate femora at their apex beneath, with a white spot; the posterior femora and coxæ ferruginous; all the tibiæ have a fuscous stain beneath; the metathorax, three basal segments of the abdomen and a spot in the middle of the fourth segment, ferruginous; the subcordate space at the base of the metathorax black, smooth, and shining, with a few striæ at the base; two spots at the base of the second segment of the abdomen and a large one on each side of the third and fifth segments, white: beneath, the third, fourth and fifth segments have on each side a small erect plate, concave within; viewed sideways having the appearance of rows of teats; the segments, except the apical one, ferruginous.

Hab. Madras. (Coll. Walter Elliott, Esq.)

76. Cerceris orientalis. B.M.

Female. Length 10½ lines.—Reddish-brown: the tips of the mandibles and the basal margins of the second and three following segments of the abdomen black; the clypeus elevated, deeply and widely emarginate, forming a crescent-shaped appendage; the wings yellow, with a fuscous border to their apical margins; the nervures pale rufo-testaceous.

The male differs in having the mesothorax and also the vertex fuscous, the face reddish-yellow, and the apical joint of the antennæ bent.

Hab. Madras. (Coll. Walter Elliott, Esq.)

77. Cerceris vigilans. B.M.

Male. Length 5–5½ lines.—Head and thorax black, opake; the clypeus and a line above terminating in a point at the anterior ocellus, a broad stripe at the inner orbit of the eyes, yellow; the flagellum ferruginous beneath, the apical joint bent; the vertex and cheeks with a thin hoary pubescence. Thorax: the sides of the thorax, the metathorax and the coxa and femora with thin hoary pubescence; a white stripe on the tibiæ outside, and the basal joint of the intermediate tarsi, white; wings fuscous, with a darker cloud at their apex. Abdomen ferruginous, the basal and two apical joints black; an interrupted broad white fascia on the basal segment.

Hab. Madras. (Coll. Walter Elliott, Esq.)

78. Cerceris pictiventris.

Cerceris pictiventris, *Dahlb. Hym. Europ. Synop. Sp.* i. 498.

Hab. Java.

79. Cerceris fuliginosa. B.M.

Female. Length 6½ lines.—Black, immaculate; the face covered with cinereous pubescence; the head and thorax opake. Thorax rugose, the scutellum longitudinally striated, the striæ punctured; the triangular space at the base of the metathorax obliquely striated; wings dark fuscous, the posterior pair paler. Abdomen slightly shining, not very closely punctured.

Hab. Celebes. (Coll. Madame Ida Pfeiffer.)

80. Cerceris ferox.

Female. Length 5½ lines.—Black, the head and thorax closely punctured; the head wider than the thorax, the face widest anteriorly; the clypeus, the carina above it, a large semicircular

spot on each side of the face, the face on each side of the clypeus, the mandibles, and a line on the inner side of the scape, yellow; an ovate spot behind the eyes, and two oblong spots placed obliquely on the vertex, yellow. Thorax: a spot on each side of the collar, another beneath the wings, the margins of the tegulæ, the scutellum, post-scutellum, sides and apex of the metathorax, yellow; the enclosed subcordate space longitudinally striated at the base; the wings slightly coloured, a fuscous cloud on the anterior margin of the superior pair; the legs yellow, a fuscous stripe on the femora above, and on the intermediate and posterior tibiæ behind; the apical joints of the tarsi ferruginous, the posterior pair fusco-ferruginous. Abdomen: the first segment somewhat elongate and deeply punctured; the following segments smooth and shining; a minute yellow spot towards the apex of the first segment above, two placed obliquely at the base of the second, its apical margin with a narrow yellow band, interrupted on each side, the third, fourth and fifth segments with narrow bands on their apical margins which are broadly expanded at the sides of the abdomen; beneath, the second, third and fourth segments with a large angular spot on each side.

Hab. Sumatra. (Coll. F. Smith.)

81. Cerceris bicornuta. B.M.

Female. Length 6 lines.—Black: the clypeus, a tridentate spot above, the mandibles, a line behind the eyes, two minute spots on the vertex, and the scape in front, yellow; the flagellum fulvous beneath; the clypeus elevated, deeply emarginate, forming two horns, rounded at their apex. Thorax: an interrupted line on the collar, a band beneath the wings, which crosses the breast, the tegulæ, two large spots on the scutellum, the post-scutellum, and a large macula on each side of the metathorax, yellow; the wings slightly coloured, with a fuscous cloud extending from the base of the marginal cell to the apex of the wings; the legs yellow, more or less ferruginous above. Abdomen: the sides of the basal segment and a band at the basal margin of the second segment yellow; another on the apical margin, as well as on the apical margins of the three following; beneath, yellow; the apical margins of the segments rufo-testaceous; the apical margin ferruginous.

Hab. North China.

82. Cerceris fervida. B.M.

Female. Length 8 lines.—Black, closely and strongly punctured; the face below the antennæ yellow; the clypeus produced

and acute in the middle; a yellow spot on the mandibles at their base; the metathorax with a triangular-shaped space at the base in the centre, which is obliquely striated; wings dark fuscous; the legs ferruginous, with a yellow stripe in front of the anterior and intermediate tibiæ and tarsi; the posterior tibiæ serrated exteriorly, and covered with shining pile within. Abdomen: the first, second, and base of the third segment ferruginous; the apical portion of the third segment yellow, with a slight emargination in the middle; the sixth ventral segment armed with an acute spine on each side at the apex.

Hab. North China. (Coll. R. Fortune, Esq.)

83. Cerceris Sinensis. B.M.

Female. Length 4½ lines.—Black: the face below the antennæ, the scape in front, and the mandibles, yellow, the tips of the latter ferruginous; the apex of the clypeus slightly elevated. Thorax: the collar, a spot behind the tubercles, the tegulæ, two spots on the scutellum, the post-scutellum, and an ovate macula on the posterior lateral angles of the metathorax, yellow; wings subhyaline, with a fuscous cloud occupying the marginal cell and extending to the apex of the wing; legs yellow, the base of the coxæ, and of the anterior and intermediate femora, black; the posterior femora black, with their extreme apex yellow; the posterior tibiæ above, except their base, and the tarsi, rufo-piceous. Abdomen: the first segment with a narrow yellow band on its apical margin, the second segment with a large macula at its base, and another smaller spot on each side of its apical margin, the three following segments with a yellow band on their apical margins, yellow; the three bands attenuated in the middle; beneath, the second, third and fourth segments with transverse attenuated yellow bands in the middle; the second segment sometimes yellow, with a dark macula in the middle.

Hab. North China.

84. Cerceris unifasciata. B.M.

Female. Length 4 lines.—Black: the face below the antennæ, the scape in front, and the mandibles, yellow; the flagellum fulvous beneath. Thorax: an obscure line on the collar laterally, a spot on the tegulæ in front, and the post-scutellum, yellow; a minute spot on each side of the metathorax; the wings subhyaline, the apex of the anterior wings with a dark fuscous cloud, which also occupies the marginal cell; the apex of the coxæ, the trochanters, and tips of the femora, the anterior and intermediate

tibiæ and tarsi, yellow; the tibiæ with a ferruginous stain behind. Abdomen: the third segment with a broad yellow band on its apical margin, the margins of the segments narrowly yellow-testaceous; beneath, the apical margins of the segments are yellow.

Hab. North China.

85. Cerceris zonalis. B.M.

Cerceris zonalis, *Smith, Trans. Ent. Soc. Lond.* new ser.

Female. Length 6 lines.—Black and punctured; the scape in front, the face below the antennæ and the mandibles, yellow; the flagellum fulvous beneath; the face with a short thin silvery pubescence. Thorax: the collar and post-scutellum fulvous; the tegulæ pale rufo-testaceous; the wings slightly coloured, with a smoky cloud along the anterior margin of the superior pair; the legs dark rufo-piceous, the joints paler, with the tibiæ and tarsi yellow beneath. Abdomen: the first segment ferruginous, with the base black; the third, with a yellow band on its apical margin and an indistinct one on the fifth, obscure reddish-yellow; the margins of all the segments rufo-piceous above and beneath.

Hab. North China. (Coll. R. Fortune, Esq.)

86. Cerceris aquilina. B.M.

Female. Length 4½ lines.—Black and punctured; the clypeus elevated from its base; the carina between the antennæ much elevated and slightly arched, when viewed sideways in conjunction with the clypeus, forming a kind of beak; the clypeus, sides of the face and the cheeks, pale testaceous, and covered with short silvery pile; the base of the mandibles yellowish, as well as the scape in front; the flagellum ferruginous beneath towards the base. Thorax: the collar, tegulæ in front, the scutellum, two spots on the post-scutellum, and a spot on each side of the metathorax, yellow-testaceous; the wings subhyaline, with a dark fuscous cloud occupying the marginal cell, and extending to the apex of the wing; the anterior and intermediate femora beneath yellowish-white; the tibiæ and tarsi testaceous; the posterior tibiæ testaceous at the base, the tarsi fuscous; the intermediate tibiæ with a dark stain behind. Abdomen: the apical margin of the first, fourth and fifth segments testaceous yellow; the two latter dilated at the sides, the second and apical segments entirely testaceous; the extreme base of the second segment black; the extreme margin of the segments more or less ferruginous; beneath, the margins of the segments

broadly testaceous; the four apical segments distantly punctured.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

87. Cerceris atriceps. B.M.

Female. Length 5 lines.—Black and punctured; the basal joint of the flagellum obscurely ferruginous beneath; the face covered with silvery pubescence. Thorax: a line on the outer margin of the tegulæ, and the post-scutellum, yellow; the subcordiform space at the base of the metathorax smooth and shining, with an impressed line down the centre; the wings hyaline, with a fuscous stain along the anterior margin of the superior pair; the tibiæ with a testaceous stripe in front, and the posterior femora testaceous at their apex beneath. Abdomen: a narrow orange-yellow band on the apical margin of the third segment; the abdomen is thinly covered with short hoary pile, most observable at the sides and beneath.

Hab. Brazil (Para). (Coll. H. W. Bates.)

88. Cerceris basalis.

Female. Length 5 lines.—Black and strongly punctured; an abbreviated line at the inner orbit of the eyes, and the base of the mandibles, yellow. Thorax: a narrow yellow line on the posterior margin of the scutellum; the tibiæ in front, and the anterior and intermediate tarsi beneath, yellow; the tips of the femora yellow beneath; the wings with a fulvous stain towards their base; a fuscous cloud occupies the first submarginal and the marginal cells, and extends to the apex of the wings, the nervures ferruginous; the subcordate enclosed space at the base of the metathorax coarsely punctured. Abdomen covered with a fine changeable silky pile; the first segment not so narrow as is usual in the genus, and widest at its apex; the third and following segments yellow; the segments beneath with yellow bands on their apical margins; the fifth and sixth yellow.

Hab. Brazil. (Coll. F. Smith.)

89. Cerceris imitator. B.M.

Male. Length 5 lines.—Head and thorax black and shining, strongly punctured; the scape in front, face and mandibles, yellowish-white; the flagellum pale testaceous towards the base beneath; the collar, tegulæ in front, and two transverse ovate spots in the middle of the metathorax, yellowish-white, the legs beneath are of the same colour; the posterior tarsi fuscous; the

wings hyaline, with a fuscous cloud at their apex. Abdomen ferruginous, with the basal and two apical segments black and strongly punctured, with a short silky pubescence beneath; the first segment with a broad emarginate yellow band on its apical margin; a narrow yellow line on the apical margin of the fifth segment laterally, an uninterrupted one on the sixth, and the sides of the seventh yellow.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

90. Cerceris intricata. B.M.

Male. Length 5 lines.—Black: the face, scape in front, and the mandibles, yellow; a minute yellow spot behind the eyes, and a large one on the cheeks; the flagellum of a testaceous yellow beneath. Thorax: a minute spot on each side of the collar, a line on each side of the prothorax anteriorly, a spot beneath the wings, a curved line on each side of the pectus, a spot on the tegulæ in front, another on each side of the scutellum, the post-scutellum, a line down the middle of the subcordate space at the base of the metathorax, two ovate spots beneath it, and a minute one on the posterior lateral angles of the metathorax, yellow; wings hyaline, with a broad dark fuscous cloud on the anterior margin of the superior pair; the legs yellow beneath; the anterior and intermediate tarsi yellow, the tips of the joints slightly ferruginous above; the posterior pair black, the joints slightly dilated and bordered with bright silky pile within; the head and sides of the thorax with a thin short cinereous pubescence. Abdomen: the sides and posterior margin of the basal segment yellow; a narrow yellow band on the posterior margins of the four following segments; beneath, the first segment yellow, the second with a spot at the base and one on each side; the following segments are more or less spotted on each side, and thinly covered with silky pubescence.

The male differs in being smaller and in having more yellow on the collar and scutellum; the posterior tibiæ are yellow at their base.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

91. Cerceris latro. B.M.

Female. Length 4 lines.—Black and punctured: the clypeus elevated, forming an obtuse tubercle, rounded above and flattened beneath, the lower or flattened side pale testaceous; the sides of the face, mandibles, and scape beneath, of the same colour; the flagellum fulvous beneath. Thorax: an interrupted narrow line on the collar, a spot on each side of the scutellum, the post-

scutellum, and a stripe on each side of the thorax, yellow; the wings slightly coloured, with a dark fuscous cloud on the anterior margin of the superior pair; the nervures rufo-testaceous, brightest at the base of the wings; the tegulæ ferruginous; the legs fuscous above and yellow beneath; the coxæ and posterior femora fuscous, their apex testaceous; the posterior tarsi fuscous. Abdomen: the apical half of the first segment yellow; the apical margin of the third segment with a narrow yellow band; the apical margins of all the segments very narrowly testaceous; beneath, the margins have a very narrow yellow band.

Hab. Brazil (Para). (Coll. H. W. Bates.)

92. Cerceris marginata. B.M.

Female. Length 5 lines.—Black: the clypeus, sides of the face as high as the antennæ, a triangular spot above the clypeus, the carina above the antennæ, the mandibles, and scape in front, yellow; the flagellum fulvous beneath; the tips of the mandibles ferruginous. Thorax: the collar transverse, straight, not arched, angulated on each side; the collar, tubercles, two spots on the scutellum, a transverse interrupted line on the post-scutellum, an oblique line on each side of the subcordate space at the base of the metathorax, and a stripe on each side of the metathorax, yellow; the punctures on the metathorax coarse, and running into longitudinal striæ; the subcordate space at the base of the metathorax transversely grooved, with a central longitudinal impressed line which passes downwards to the apex of the metathorax; the metathorax with large deep scattered punctures; the coxæ, trochanters, and femora beneath, yellow; the tibiæ in front, and the anterior and intermediate tarsi, yellow; the apical joints of the intermediate tarsi and the posterior pair fuscous; the wings hyaline, with a fuscous spot at the apex of the externo-medial cell, and a cloud occupying the marginal cell and extending to the apex of the wing. Abdomen strongly but not closely punctured; the sides and apex of the first segment yellow; a yellow band on the apical margin of the third and three following segments; the apical segment entirely yellow, with a black spot in the middle of its base.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

93. Cerceris rixosa. B.M.

Female. Length 4½ lines.—Black and coarsely punctured; the face, scape in front, and the mandibles, yellow; the flagellum fulvous beneath. Thorax: the tegulæ and post-scutellum yel-

low; the subcordate space at the base of the metathorax longitudinally striated; the apex of the coxæ, the intermediate and posterior trochanters, and the apex of the anterior pair, yellow; the anterior and intermediate tibiæ and tarsi yellow, the tibiæ with a dark stain behind; the posterior tibiæ yellow beneath; wings hyaline, the anterior pair with a fuscous cloud at their apex. Abdomen: the third segment yellow, with the extreme base black; the three following segments with a narrow yellow band on their apical margins; a yellow spot on the apical segment at its base.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

94. Cerceris rugosa. B.M.

Female. Length 4 lines.—Black: coarsely punctured, the punctures on the disk of the thorax running into longitudinal striæ, on the abdomen they are large, deep, and confluent; the face, mandibles, and scape in front, yellow; the face covered with silvery pubescence; the flagellum fulvous beneath, the apical joint entirely so. Thorax: a yellow line on the posterior margin of the scutellum; the anterior and intermediate tibiæ in front, and the tarsi, yellow; the posterior femora at their apex in front yellow; the tibiæ and tarsi black; the wings hyaline, a fuscous cloud on the anterior margin of the superior pair. Abdomen: a broad yellow band on the posterior margin of the first segment and a narrow one on that of the third; beneath, a pale lunate spot in the middle of the second segment.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

95. Cerceris sævissima. B.M.

Female. Length 4 lines.—Black and strongly punctured; the face below the antennæ and the mandibles pale testaceous, the tips of the latter ferruginous; the clypeus slightly elevated; the flagellum fulvous beneath. Thorax: a narrow indistinct line on the collar, the tegulæ, two spots on the clypeus, an indistinct narrow line on each side of the subcordiform space at the base of the metathorax, and a narrow line at the sides, of an orange-yellow; the wings slightly coloured, with a dark fuscous cloud on the anterior margin of the superior pair; the tips of the coxæ and trochanters pale testaceous; the anterior and intermediate femora yellow beneath; the posterior pair rufo-testaceous beneath; the anterior tibiæ and tarsi yellow, the tibiæ black above. Abdomen: the apical margin of the basal segment pale testaceous-yellow; the second segment black, the following tes-

taceous-yellow, with the extreme base of the third segment black; beneath, dark rufo-testaceous, with the apical margins of the segments pale testaceous.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

96. Cerceris simplex. B.M.

Female. Length 7 lines.—Black, punctured: the clypeus produced in front, obconic, slightly elevated; the flagellum fulvous beneath towards the base; the post-scutellum, a spot on the subcordate space at the base of the metathorax and two elongate spots beneath it, yellow; the legs fusco-ferruginous, brightest beneath; the anterior half of the fore wings dark fuscous, the posterior portion hyaline; the posterior wings slightly coloured. Abdomen: the sides and apical margin of the basal segment yellow; the sides of the abdomen and beneath thinly covered with a fine silky white pubescence.

The male differs in having a yellow line at the inner orbit of the eyes, and a yellow spot on each side of the metathorax, the spot on the subcordate space and also those below it being obsolete.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

97. Cerceris tricolor. B.M.

Female. Length 5 lines.—Black: the face yellow; the scape in front, the base of the mandibles and a large spot on the cheeks, yellow; the vertex ferruginous, with a large black spot on the front, which encloses the ocelli; the antennæ ferruginous, the flagellum fuscous above towards the apex. Thorax: the collar, a spot in front of the tegulæ, two beneath the wings, another on each side of the scutellum and the post-scutellum, yellow; the sides of the metathorax ferruginous; wings fusco-hyaline, with a darker cloud at their apical margins; the nervures fuscous, the costal nervure and stigma pale ferruginous; the legs ferruginous, with the tibiæ yellowish in front. Abdomen: the basal half of the first segment ferruginous, the apical half yellow; the apical margins of the third and fifth segments with a narrow yellow band; beneath, immaculate.

The male differs in having the vertex and metathorax black; the first segment of the abdomen is black at the base; the markings are the same, with the addition of two transverse spots on the vertex.

Hab. Brazil (Santarem). (Coll. H. W. Bates.)

98. Cerceris viduata. B.M.

Female. Length 6 lines.—Black: the punctures deep and close on the face, but more distant on the vertex; the clypeus elevated, forming a somewhat conical tubercle, subacute at the apex, the extreme apex black, the rest of the clypeus yellow; a line on the inner orbit of the eyes, not running higher than the antennæ, a large macula on the anterior angles of the face, the middle of the mandibles outside, and the carina between the antennæ, yellow; a yellow stripe crossing the vertex behind the eyes; the extreme base of the flagellum beneath fulvous; the face with short golden pubescence at the sides. Thorax: the mesothorax opake, the punctures shallow and distant; an interrupted line on the collar, a spot beneath the wings, the front of the tegulæ, a spot on each side of the scutellum, the post-scutellum, two longitudinal stripes on the metathorax, extending from the apex halfway towards the base, yellow; the fore wings with a fuscous cloud along their anterior margins; the anterior legs with a yellow stripe on the femora beneath; the tibiæ in front and the basal and apical joints of the tarsi ferruginous; the intermediate and posterior legs with the coxæ and femora beneath, the intermediate tibiæ in front, the posterior tibiæ at their base beneath, yellow; the basal joint of the intermediate and posterior tarsi pale testaceous. Abdomen: the first segment black and strongly punctured, the apical margin yellow; the rest of the abdomen ferruginous, with a fuscous stain in the middle of the first segment, the following segments more or less fuscous; the second segment subpetiolate, with a narrow yellow band on the apical margin; beneath, the first segment yellow and carinated in the middle, the second yellow with a ferruginous stain in the middle.

This may possibly prove to be the female of the *C. binodis* of Spinola; but, independent of the different colouring of the abdomen, the sculpture is very different: in *C. binodis* the thorax is strongly punctured, whilst in the present species the punctures on the mesothorax are very delicate, not being visible without a magnifying power.

Hab. Brazil (Para). (Coll. H. W. Bates.)

99. Cerceris vulpina. B.M.

Male. Length 5 lines.—Black, punctured: the face, scape in front, mandibles at their base, a large spot on the cheeks, a minute one behind the eyes, two minute ones on the vertex, yellow; the flagellum pale testaceous beneath. Thorax: an interrupted line on the collar united to a spot beneath the wings,

a curved line on each side of the pectus, two in front of the anterior coxæ, two on the prothorax beneath, the tegulæ, two lines on the disk of the mesothorax, a spot on each side of the scutellum, the post-scutellum, and the metathorax, yellow; the sides of the subcordate space, and an angular spot beneath it, black; the anterior margins of the fore wings fuscous; the coxæ and trochanters yellow beneath, the femora and tibiæ yellow in front; the anterior and intermediate tarsi yellow. Abdomen: the basal segment yellow, with a black spot in the middle of its base; the four following segments with a narrow yellow band on their apical margins.

Hab. Brazil.

100. Cerceris binodis. B.M.

Cerceris binodis, *Spin. Ann. Soc. Ent. Fr.* x. new ser. 117. t. 3. f. 3 ♂ (1841).

Diamma Spinole, *Dahlb. Hym. Europ.* i. 225. 1.

Diesmus Spinolæ, *Dahlb. Hym. Europ. Synop. Spec.* i. 502. 1.

Hab. Cayenne; Brazil (Villa Nova). (Coll. H. W. Bates.)

This species has the appearance of a wasp, closely resembling some of the species of the genus *Zethus*; on closer inspection it will be found to be a *Cerceris*, differing from the generality of the species in having the basal segment ovate, and the second campanulate: in other respects it offers no remarkable difference. The neuration of the wings is identical with *Cerceris*.

101. Cerceris cribrosa.

Cerceris cribrosa, *Spin. Ann. Soc. Ent. Fr.* x. new ser. 119. 74 ♀ ♂ (1841).

Hab. Cayenne.

102. Cerceris dilatata.

Cerceris dilatata, *Spin. Ann. Soc. Ent. Fr.* x. new ser. 118. 73 ♂ (1841).

Hab. Cayenne.

103. Cerceris Chilensis. B.M.

Cerceris Chilensis, *Spin. Gay's Chili*, vi. 344. 1.

Hab. Chili. (Coll. F. Smith.)

104. Cerceris Gayi.

Cerceris Gayi, *Spin. Gay's Chili*, vi. 346. 2.

Hab. Chili.

105. Cerceris lævigata. B.M.

Female. Length 4 lines.—Black and very delicately punctured; the face, base of the mandibles, and a line behind the eyes, yellow; the flagellum fulvous beneath. Thorax: the collar, tubercles, a spot beneath the wings, the scutellum, and an oblong macula on each side of the post-scutellum, yellow; the anterior and intermediate tibiæ, and the posterior pair at their base, yellow; the anterior tarsi yellow, with the apical joints slightly ferruginous, the intermediate and posterior pair fusco-ferruginous; wings slightly coloured, with a fuscous cloud on the anterior margin of the superior pair. Abdomen very delicately and sparingly punctured and shining; the first segment with its apical margin yellow, a slight notch in the middle of the band; the second, third and fourth segments with a yellow fascia on their apical margins, very much attenuated in the middle and widened at the sides.

The male has a yellow band on the first and four following segments.

Hab. St. Domingo.

106. Cerceris clypeata. B.M.

Cerceris clypeata, *Dahlb. Hym. Europ.* i. 221.

Hab. North America (Wilmington, Delaware). (Coll. E. Doubleday, Esq.)

107. Cerceris deserta. B.M.

Cerceris deserta, *Say, Narr. Exped. St. Peter's River, Append.* p. 76.

Hab. N. America (Missouri; Pennsylvania; North Carolina).

108. Cerceris fumipennis. B.M.

Cerceris fumipennis, *Say, Bost. Journ.* i. 381. 1.

Hab. N. America (Indiana).

109. Cerceris sexta.

Cerceris sexta, *Say, Bost. Journ.* i. 382. 2.

Hab. N. America (Missouri).

110. Cerceris nigrescens. B.M.

Female. Length 5 lines.—Black: the sides of the face and the clypeus pale yellow, the margins of the latter black; the mandibles yellow at their base; the clypeus transverse, projecting from its base, very obsoletely emarginate in front; the flagellum slightly fulvous towards the base beneath. Thorax: a minute spot on each side of the collar, another on the tegulæ and the post-scutellum, yellow; the mesothorax sparingly punctured, the metathorax strongly so, the subcordiform space at the base longitudinally striated; the anterior and intermediate tibiæ in front yellow; the tarsi ferruginous; the posterior legs entirely black; the wings subhyaline, the nervures ferruginous. Abdomen: the basal segment with a yellow spot on each side, the following segments with uninterrupted fasciæ narrowed in the middle; beneath, entirely black.

Hab. Nova Scotia.

111. Cerceris Dufourii.

Cerceris Dufourii, *Guér. Icon. Règ. Anim.* 444.

Hab. New Orleans.

112. Cerceris verticalis.

Female. Length 6 lines.—Black, thickly punctured; the head ferruginous behind the eyes; the scape and second joint of the flagellum ferruginous; the face below the antennæ yellow; the margins of the clypeus black; the mandibles ferruginous, their extreme base yellow. Thorax: the collar yellow, interrupted in the middle by a ferruginous spot; the post-scutellum and a spot on the tegulæ yellow; a large ferruginous blotch on each side of the metathorax; the wings smoky-hyaline; the legs ferruginous. Abdomen: the basal segment ferruginous, with a minute yellow spot on each side; the second segment yellow, with the basal margin and a produced quadrate spot in the middle ferruginous; the margins of the following segments with a narrow band which is widened at the sides; beneath, rufo-piceous, brightest at the base.

Hab. Georgia. (Coll. F. Smith.)

113. Cerceris bicornuta. B.M.

Cerceris bicornuta, *Guér. Icon. Règ. Anim.* 443.

Hab. United States (New Orleans; Georgia; Delaware).

This species is very variable in colouring, the abdomen and

thorax being very indistinctly marked with fulvous; the post-scutellum is frequently yellow.

114. Cerceris elegans. B.M.

Male. Length 3 lines.—Black, coarsely punctured; the face below the antennæ, the scape in front, and the mandibles, yellow, the tips of the mandibles ferruginous; the anterior margin of the clypeus rounded; the anterior angles of the face produced into small quadrate lobes; the flagellum and scape behind ferruginous. Thorax: a spot on each side of the collar and the tegulæ in front yellow; wings smoky-hyaline and beautifully iridescent; the legs yellow, with the coxæ and the femora at their base more or less rufo-piceous; the metathorax very coarsely rugose. Abdomen: the two basal segments ferruginous, the apical margin of the second segment yellow; an elongate yellow spot on each side of the following segments on their apical margins, the spots widest at the margins of the segments and pointed within.

Hab. East Florida. (Coll. E. Doubleday, Esq.)

115. Cerceris rufo-picta. B.M.

Male. Length 4 lines.—Black, coarsely punctured; the face yellow below the antennæ; the anterior margin of the clypeus black, crenulated, and angular; the anterior margin of the face has on each side an angular filament close to the eye; the mandibles yellow, their tips ferruginous; the antennæ ferruginous; the flagellum fuscous above towards the apex, the apex pale. The prothorax, tegulæ, scutellum, post-scutellum, with sometimes a spot on each side, and the legs, ferruginous; the wings fusco-hyaline, the apical margins of the anterior wings darkest. Abdomen: the two basal segments ferruginous; the apical margin of the third with a narrow ferruginous band; the fourth and following segments more or less banded at the sides with ferruginous or sometimes with reddish-yellow.

Hab. East Florida. (Coll. E. Doubleday, Esq.)

Genus 15. PHILANTHUS.

Vespa, pt., *Fabr. Syst. Ent.* 362 (1775).
Crabro, pt., *Rossi, Mant.* i. 138 (1792).
Philanthus, pt., *Fabr. Ent. Syst.* ii. 288 (1793).
Simblephilus, *Jurine, Hym.* 185 (1807).
Trachypus, *Klug, Berl. Mag.* iv. 43 (1810).
Anthophilus, *Dahlb. Hym. Europ.* i. 497 (1843–5).

Div. 1. *Abdomen sessile.*

1. PHILANTHUS TRIANGULUM. B.M.

Vespa triangulum, *Fabr. Syst. Ent.* 373. 49 ♀. *Cab. Mus. Dom. Banks.*; *Sp. Ins.* i. 469. 68; *Mant. Ins.* 294. 82.
Villers, Entom. iii. 276. 25.
Christ. Hym. 136.
Oliv. Encycl. Méth. vi. 693. 116.
Vespa limbata, *Oliv. Encycl. Méth.* vi. 693. 118.
Crabro androgynus, *Rossi, Faun. Etrus. Mant.* i. 138. 305.
Philanthus pictus, *Panz. Faun. Germ.* 43. 23 ♂.
Fabr. Syst. Piez. 362. 5.
Philanthus apivorus, *Latr. Fourm.* 317. t. 12. f. 2 *a, b.*
Spin. Ins. Ligur. i. 95. 1.
Philanthus discolor, *Panz. Faun. Germ.* 63. 18 ♂.
Philanthus triangulum, *Fabr. Ent. Syst.* ii. 289. 2; *Syst. Piez.* 302. 4.
Duméril, Consid. t. 59. f. 6. 7.
Van d. Lind, Obs. ii. 122. 2.
Shuck. Foss. Hym. 246. 1.
Dahlb. Hym. Europ. i. 187. 115.
St. Farg. Hym. iii. 34. 2.
Wesm. Hym. Foss. Belg. 105. 6.
Simblephilus diadema, *Jurine*, t. 10. gen. 18 ♀.
Philanthus androgynus, *Curtis, Brit. Ent.* vi. t. 273 ♀.

Hab. Britain; France; Germany; Italy; Denmark.

2. PHILANTHUS CORONATUS. B.M.

Philanthus coronatus, *Fabr. Ent. Syst.* ii. 288. 1; *Syst. Piez.* 301. 1.
Latr. Hist. Ins. iii. 367.
Panz. Faun. Germ. 84. 23.
Van d. Lind, Obs. ii. 121. 1.
Dahlb. Hym. Europ. i. 189. 116.
St. Farg. Hym. iii. 36. 3.
Simblephilus coronatus, *Jurine, Hym.* 188 ♀.

Hab. Italy; France.

3. PHILANTHUS VENUSTUS.

Crabro venustus, *Rossi, Faun. Etrus.* ii. 94. 889.
Philanthus venustus, *St. Farg. Hym.* iii. 37. 4.

Hab. France.

4. Philanthus Melliniformis. B.M.

Male. Length 3½ lines.—Black: the face below the antennæ, a large ovate spot on the forehead in front of the anterior ocellus, the scape in front, and five or six of the basal joints of the flagellum in front, yellow; a spot at the base of the mandibles yellow. Thorax: the collar, tubercles, post-scutellum, tegulæ, tips of the femora, tibiæ and tarsi, yellow; the wings hyaline and iridescent, the nervures testaceous, with the stigma yellow. Thorax strongly punctured, with two elevated longitudinal carinæ in the middle, and an impressed line on each side over the tegulæ; the metathorax with a depression at its base surrounded by a smooth shining space. Abdomen shining, with strong scattered punctures; the basal segment with a broad interrupted yellow band in the middle, the second with two very large ovate yellow maculæ placed obliquely and uniting in the middle; the four following segments with narrow yellow fasciæ on their apical margins, the first two slightly interrupted; beneath, black.

Hab. Sicily.

5. Philanthus pulcherrimus. B.M.

Female. Length 4 lines.—Black: the face below the antennæ, the mandibles, three basal joints of the flagellum, the scape, a coronet-shaped spot on the forehead, and a line behind the eyes, yellowish-white; the flagellum fulvous in front. Thorax shining, with deep scattered punctures; the collar, tubercles, and a spot behind them, the hinder margin of the scutellum, the post-scutellum, the tips of the femora, the tibiæ and tarsi, pale yellowish-white; the coxæ and femora more or less rufo-piceous; the wings hyaline, the nervures testaceous, the stigma yellow. Abdomen shining, with fine scattered punctures; the basal segment ferruginous, with a minute white spot on each side; the second segment with a broad waved fascia, the third spotted at the side, the fourth with a very broad fascia, the fifth with a narrow band on its apical margin, widened in the middle and at the sides, and the sixth entirely yellowish-white; beneath, with pale irregular bands.

Male.—Smaller, but very like the female; and the face is more convex; the scutellum is entirely pale; the abdomen has only two pale fasciæ, one on the second and another on the fourth segment.

Hab. India.

6. Philanthus sulphureus.

Male. Length 4 lines.—Sulphur-yellow, shining and strongly

punctured; the face below the antennæ white; the mandibles, the scape in front, and two or three of the basal joints of the flagellum, nearly white, the following joints becoming gradually dark fusco-ferruginous towards the apex; the eyes brown, a black line round them above, from which a line passes across the vertex, and a second across the forehead passing between the ocelli. Thorax: the mesothorax with three longitudinal black stripes united by a transverse line at the apical and basal margins; a black stripe at the extreme basal margin of the metathorax, an angular black spot in the middle, in which is a deep fossulet; wings hyaline, the nervures pale testaceous, the stigma yellow; the femora pale ferruginous, their base and apex yellow. Abdomen: the base and the apical margins of the segments ferruginous.

Hab. Northern India. (Coll. F. Smith.)

7. Philanthus depredator.

Male. Length 6½ lines.—Ferruginous: the face as high as the emargination of the eyes, the scape in front, the cheeks, and the mandibles at their base, yellow. Thorax: the collar, sides of the breast, the tegulæ and a minute spot over them, the scutellum, post-scutellum, and a spot on each side of the metathorax, yellow; an oblong depression at the base of the metathorax in the middle, the depression black; the wings fulvo-hyaline, the nervures ferruginous; the apex of the wings clouded, the anterior pair darkest; the tibiæ and tarsi yellow; the anterior and intermediate femora yellow beneath. Abdomen: the second, third and fourth segments with a large yellow macula on each side; the fifth, sixth and seventh yellowish beneath; the second and third segments yellow, with their base narrowly ferruginous; the second segment has on each side a longitudinal black line terminating at the middle of the segment.

Hab. India. (Coll. F. Smith.)

8. Philanthus pallidus.

Philanthus pallidus, *Klug, Symb. Phys.* dec. v. t. 47. f. 8 ♂.

Hab. Ethiopia (Ambukohl).

9. Philanthus dimidiatus.

Philanthus dimidiatus, *Klug, Symb. Phys.* dec. v. t. 47. f. 7 ♂.

Hab. Ethiopia (Ambukohl).

10. PHILANTHUS RAPTOR.

Philanthus raptor, *St. Farg. Hym.* iii. 38. 5.
Lucas, Explo. Sc. Algér. iii. 259.

Hab. Algeria (Oran).

11. PHILANTHUS DIADEMA. B.M.

Philanthus diadema, *Fabr. Ent. Syst.* ii. 289. 3, & *Cab. Mus. Dom. Banks.*; *Syst. Piez.* 302. 6.
Coqueb. Ill. Icon. Ins. dec. iii. t. 22. f. 1.
Philanthus Abdelkader, *St. Farg. Hym.* iii. 33. 1.
Lucas, Explo. Sc. Algér. iii. 257. t. 13. f. 7.

Hab. Africa (the Cape of Good Hope; Port Natal; the Gambia; Sierra Leone; Egypt; Algeria).

This species has been obtained from all the above localities; on examining a large number of specimens, it proves to be an insect subject to much variety. The most highly coloured individuals are from the Gambia: some specimens have the head and thorax ferruginous; there are two black spots above the tridentate spot on the face, and another which encloses the ocelli; the thorax has a black stain before the scutellum and another at the base of the metathorax, otherwise entirely ferruginous and yellow. Specimens from the Cape have usually less of the yellow and ferruginous colouring, and the scutellum is sometimes nearly or entirely black.

12. PHILANTHUS FORMOSUS. B.M.

Male. Length 6 lines.—Black: the face as high as the emargination of the eyes, yellow; a minute black spot above the clypeus, and another above the insertion of each antenna; the mandibles and base of the flagellum ferruginous; the hinder margin of the vertex and cheeks ferruginous. Thorax: the collar with a narrow yellowish-white line, sometimes a yellow interrupted line on the post-scutellum; wings fuscous, palest at the hinder margin of the posterior pair; the nervures, tegulæ and legs ferruginous; the coxæ and sometimes the base of the femora black. Abdomen: the first segment, the apical margins of the four following, and the two apical segments entirely, ferruginous; the second segment has on each side at its base an oblong whitish macula pointed within; the third, fourth and fifth segments have a narrow undulating white marginal line.

Hab. Cape of Good Hope.

13. Philanthus Dufourii. B.M.

Philanthus Dufourii, *Lucas, Explo. Sc. Algér.* iii. 258. t. 13. f. 6.

Hab. Algeria; Cape of Good Hope.

14. Philanthus fuscipennis.

Philanthus fuscipennis, *Guér. Icon. Règ. Anim.* iii. 443.

Hab. Senegal.

15. Philanthus sicarius. B.M.

Female. Length 5 lines.—Head and thorax black; abdomen and legs ferruginous; the wings dark fuscous, paler at their base; the mandibles, clypeus, face on each side, two spots between the antennæ, a transverse line above, the scape in front, and a spot behind the eyes, yellow; a black line on each side of the clypeus, not extending to the anterior margin of the face; the tips of the mandibles black; the flagellum beneath and the apical joint entirely fulvous; an interrupted line on the collar and a spot on the tegulæ yellow. Abdomen closely and finely punctured, and more or less yellow beneath.

Hab. West Africa (Whydah); Fernando Po.

16. Philanthus bucephalus. B.M.

Male. Length $4\frac{1}{2}$–$6\frac{1}{2}$ lines.—Head and thorax black, very closely and rather finely punctured, opake; the face as high as the antennæ, a waved transverse line above their insertion, an oblong angular spot behind the eyes, and a stripe on the mandibles, yellowish-white: in rare instances the line above the antennæ is obsolete. Thorax: a slightly interrupted line on the collar, a spot beneath the wings, sometimes obsolete, a spot on the tegulæ, and the scutellum and post-scutellum, yellowish-white; the wings dark fuscous, with a violet iridescence; the femora at their apex, the anterior and intermediate tibiæ in front, and the anterior tarsi in front, yellow; the tarsi rufo-testaceous; the extreme base of the posterior tibiæ yellow. Abdomen yellow with the base black, and usually a ferruginous stain at the apex; the abdomen is very finely and closely punctured, and is subopake.

Hab. The Gambia.

This species is nearly allied to the *P. fumipennis* of Guérin; but the specimens which agree with the description of that author have a distinctly enclosed rugose space at the base of the metathorax; the abdomen is not so closely punctured, and the scutellum and post-scutellum are black in both sexes.

17. PHILANTHUS BASALIS. B.M.

Female. Length 5½ lines.—Black: the head and thorax closely and rather finely punctured; the punctures on the scutellum distant; the clypeus and anterior margins of the face, a line on the inner orbit of the eyes, terminating at their emargination, where they are narrowest, an oblique spot above the insertion of each antenna, a short narrow line in front of the anterior ocellus, two spots on the vertex, a line behind the eyes, and the mandibles, yellow; the latter black at their apex. Thorax: a narrow line on the collar, a spot behind the tegulæ, and the scutellum, yellow; the wings slightly coloured, a fuscous spot beyond the marginal cell; the femora ferruginous, beneath rufo-piceous; the tibiæ black, the anterior and intermediate pairs yellow in front, their tarsi yellow beneath; a yellow spot at the tip of the femora in front. Abdomen smooth and shining, the first segment ferruginous at the base, and having on each side an oblong transverse macula; the three following segments with a narrow slightly interrupted yellow band on their apical margins; beneath, the second and two following segments have on each side a broad oblique stripe.

Hab. Ceylon.

18. PHILANTHUS INCERTUS.

Trachypus incertus, *Spin. Gay's Chili*, vi. 336. 2.

Hab. Chili.

19. PHILANTHUS SOLIVAGUS.

Philanthus solivagus, *Say, Bost. Journ.* i. 383.

Hab. N. America (Indiana).

20. PHILANTHUS BARBATUS.

Male. Length 5 lines.—Black: closely and rather finely punctured on the face; the vertex shining, the punctures scattered; the anterior ocellus placed in a fossulet; the clypeus, anterior margin of the face, inner orbit of the eyes not quite so high as their emargination, and a large ovate spot above the antennæ, yellow; the face furnished with a long dark beard on each side of the clypeus or its anterior margin. Thorax shining, sparingly punctured; a spot beneath the wings and the postscutellum yellow; wings fulvo-hyaline, the nervures pale ferruginous. Abdomen shining, the first segment with a few large deep punctures, or foveæ; the second segment with similar puncturing; the third segment has a few punctures on its apical

margin; a minute spot on each side of the basal segment; a broad interrupted fascia in the middle of the second segment; the third, fourth and fifth segments with a narrow fascia on their apical margins, abruptly widened at the lateral margins, yellow; beneath, black.

Hab. North America. (Coll. F. Smith.)

21. PHILANTHUS VENTILABRIS. B.M.

Philanthus ventilabris, *Fabr. Ent. Syst. Supp.* 269. 11–12.
Anthophilus ventilabris, *Dahlb. Hym. Europ.* i. 497.

Hab. North Carolina; East Florida (St. John's Bluff). (Coll. E. Doubleday, Esq.)

22. PHILANTHUS POLITUS. B.M.

Philanthus politus, *Say, Narr. Exped. St. Peter's River, Append.* p. 75. 2.

Hab. Pennsylvania.

23. PHILANTHUS PUNCTATUS. B.M.

Philanthus (Cheilopogon) punctatus, *Say, Narr. Exped. St. Peter's River, Append.* ii. p. 75. 1.

Hab. Pennsylvania; North Carolina.

24. PHILANTHUS CRABRONIFORMIS. B.M.

Male. Length 4½ lines.—Black: the face below the antennæ, with a line continued upwards along the orbit of the eyes as high as the emargination, a large campanulate-shaped spot above the clypeus, a spot behind the eyes, two on the vertex, the mandibles, scape, and three basal joints of the flagellum in front, yellow; the head large, shining, finely but not closely punctured. Thorax: the hinder margin of the collar raised, yellow, and subinterrupted in the middle; the tegulæ, tubercles, two spots beneath the wings, two on the scutellum, the post-scutellum, a spot at the lateral posterior angles of the metathorax, the apex of the femora, the tibiæ and the tarsi, yellow; the wings fulvohyaline, the nervures pale ferruginous, with a faint cloud beyond the marginal cell; the mesothorax smooth and shining, and having a few scattered punctures; in the middle is a deep longitudinal channel, and a finer one on each side; the posterior margin closely punctured in front of the scutellum. Abdomen shining, with deep scattered punctures; the first segment with a broad slightly interrupted band in the middle; the second seg-

ment has a broad band at its base, its hinder margin waved; the two following segments yellow, except their extreme base; the three apical segments entirely yellow.

Hab. California.

25. PHILANTHUS FRIGIDUS. B.M.

Male. Length 5 lines.—Black, closely and rather finely punctured; the clypeus and an oblong spot above it, a minute spot between the antennæ, the sides of the face a little above the antennæ, the scape in front, the mandibles, and a short narrow line behind the eyes, yellow; the flagellum fulvous beneath; the face and cheeks with a thin cinereous pubescence; the eyes not emarginate. Thorax: the collar, tubercles, a spot in front of the tegulæ, a transverse line at the base of the scutellum, a spot on the post-scutellum, the tibiæ, tarsi, and tips of the femora, yellow; wings hyaline, the nervures pale ferruginous. Abdomen: an ovate spot on each side of the basal segment, a transverse slightly interrupted fascia a little before the apical margin of the second, a narrower one on the third, fourth and fifth segments, similarly situated and interrupted, yellow; a similar band on the three intermediate segments beneath, slightly interrupted and rather broader than the fasciæ above.

Hab. Nova Scotia. (Coll. Lieut. Redman.)

Div. 2. *Abdomen petiolated.*

26. PHILANTHUS GOMESII. B.M.

Trachypus Gomesii, *Klug, Berl. Mag.* iv. 43. t. 1. f. 5.
Philanthus petiolatus, *Spin. Ann. Soc. Ent. Fr.* v. 121. 309. t. 3. f. 4 ♀ (1841).
Philanthus Gomesii, *Sauss. Mém. Soc. Phys. Genève*, xiv. 8. 1.
Simblephilus Spinolæ, *Dahlb. Hym. Europ.* i. 190. 43.

Hab. Brazil.

27. PHILANTHUS DENTICOLLIS.

Trachypus denticollis, *Spin. Gay's Chili*, vi. 335. 1.

Hab. Chili.

28. PHILANTHUS PATAGONENSIS.

Philanthus (Trachypus) Patagonensis, *Sauss. Mém. Soc. Phys. Genève*, xiv. 10. 4. t. f. 1 ♂.

Hab. Patagonia.

29. Philanthus Romandi.

Philanthus (Trachypus) Romandi, *Sauss. Mém. Soc. Phys. Genève*, xiv. 8. 3♀.

Hab. Brazil.

30. Philanthus (Trachypus) elegans. B.M.

Male. Length 4½ lines.—Black: the head closely punctured, the face below the antennæ covered with silvery pubescence; a minute spot on each side of the clypeus in front, another at the anterior part of the emargination of the eyes, the scape, and a spot at the base of the mandibles, yellow; the scape with a black spot behind; the two basal joints of the flagellum and also the apical one fulvous. Thorax: the mesothorax shining, with scattered punctures, and having anteriorly three deeply impressed lines which extend to the disk; the collar (which is raised and has the lateral angles rounded), the tubercles, a spot beneath the wings, another on the tegulæ in front, two at the base of the scutellum, the post-scutellum, and two elongate spots at the apex of the metathorax, yellow; the wings hyaline, with a narrow fuscous line running from the stigma to the apex of the wing; the tips of the anterior and intermediate femora, the tibiæ and tarsi, yellow; the posterior tibiæ with a yellow stripe above, not extending to their apex; the tarsi white, with the tips of the joints fuscous; the anterior and intermediate tibiæ with a rufopiceous stain beneath. Abdomen: the extreme apex yellow; the second segment with a waved yellow fascia a little before its apical margin, continued beneath; the second segment has a narrow fascia a little before its apical margin, emarginate or interrupted on each side; the following segments have each a continuous fascia; beneath, the margins are yellowish on each side.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

31. Philanthus (Trachypus) apicalis. B.M.

Male. Length 5–6 lines.—Black and shining; head strongly and closely punctured; the anterior stemma placed in a fossulet from which an impressed line passes down to the insertion of the antennæ, below which the face is covered with a golden pubescence; the first joint of the flagellum of a yellowish-white beneath; the apical joint truncated at the tip, which is of an orange-yellow. Thorax: the mesothorax strongly punctured, with a deep central depression at its base; the base of the metathorax smooth and shining, with a central abbreviated impressed line, which termi-

nates in a deep fovea at the verge of the truncation; immediately beneath is a second fovea, which extends to the apex; the sides of the metathorax closely and finely punctured; the anterior and intermediate tibiæ and all the tarsi yellowish-white; the apex of the tarsal joints rufo-piceous; the anterior and intermediate femora yellow at their apex in front; the anterior tibiæ with a row of cilia beneath; the collar yellow, transverse, elevated, with the lateral angles acute; a spot on the tegulæ in front, the post-scutellum, and a longitudinal line at the apex of the metathorax on each side of the insertion of the petiole of the abdomen, yellow; the wings hyaline, with a fuscous spot at the apex of each wing; the apex of the petiole with a spot on each side; the first, third, fourth and fifth segments with a narrow fascia on their apical margins, the three latter fasciæ bisinuated on their anterior margins.

Hab. Brazil (Villa Nova). (Coll. H. W. Bates.)

ADDENDA ET CORRIGENDA.

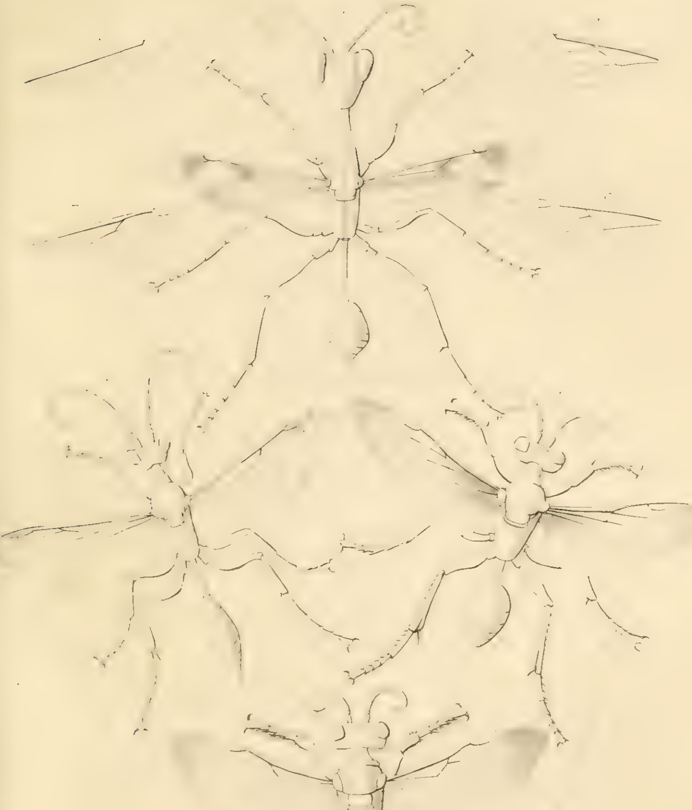
Page 10. Mutilla bifasciata, *Klug*, (nec *Swed.*) *change to* M. bizonata.

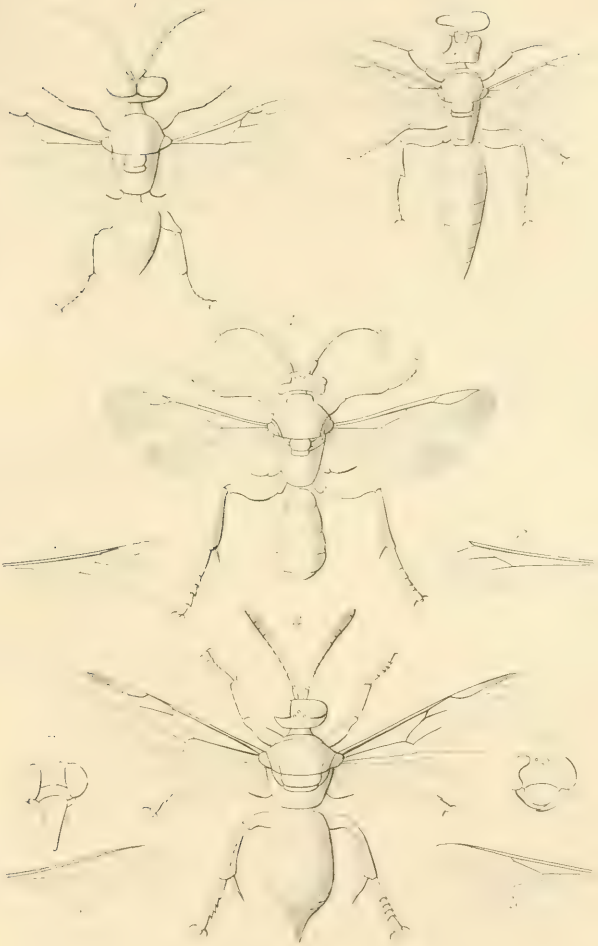
Page 30. *After* No. 64, *add* 64* Mutilla soluta, *Erichs. Wiegm. Arch.* (1842) *Erichs. Ins. Van Diem. Land.* and Mutilla blanda, *Erichs. Ins. Van Diem. Land.*

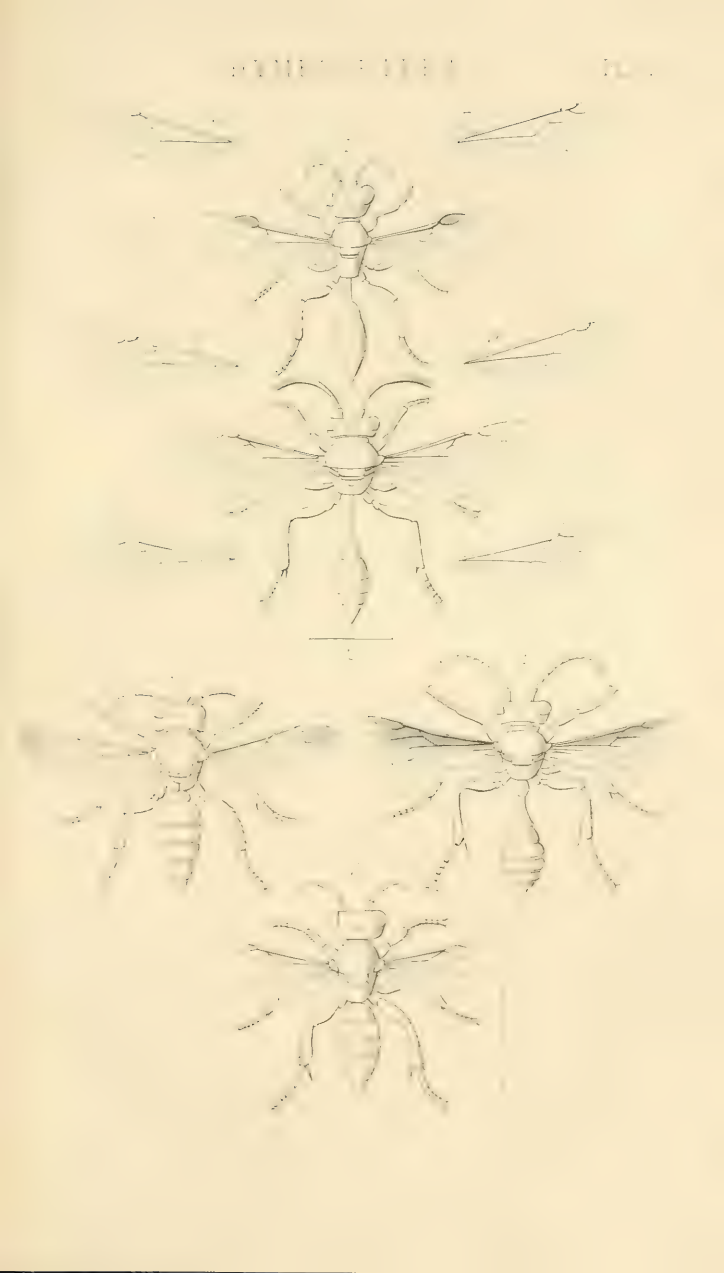
Page 36. Mutilla rufiventris (nec *Klug*) *change to* M. ruficeps.

Page 116. *After* line 22, *add* Fam. I. SAPYGIDÆ.

Page 393. Crabro affinis (nec *St. Farg.*) *change to* Crabro cognatus.







EXPLANATION OF THE PLATES.

PLATE VI.

Fig.
1. *Trigonopsis hæmorrhoidalis.*
2. *Sphex ephippium.*
3. *Podium luteipennis.*
4. *Harpactopus crudelis.*
5. Wing of *Ammophila.*

Fig.
6. Wing of *Coloptera.*
7. Wing of *Miscus.*
8. Wing of *Chlorion.*
9. Wing of *Pronæus.*
10. Wing of *Stethorectus.*

PLATE VII.

1. *Pelopœus lætus.*
2. *Rhinopsis Abbottii.*
3. *Ampulex chalybeus.*
4. *Aphelotoma Tasmanica.*
5. *Larrada aurulenta.*
6. Wing of *Dolichurus.*
7. Wing of *Tachytes.*
8. Wing of *Trirogma.*
9. Thorax of *Tachytes.*
10. Thorax of *Larrada.*
11. Wing of *Larraxena.*
12. Wing of *Exeirus.*

PLATE VIII.

1. *Astata unicolor.*
2. *Solierella miscophoides.*
3. *Pison regalis.*
4. *Larra Hogardii.*
5. Wing of *Miscophus.*
6. Wing of *Dinetus.*
7. Head of *Bembex.*
8. Head of *Pison.*
9. Wing of *Bembex.*
10. Wing of *Monedula.*

PLATE IX.

Fig.
1. *Sericophorus chalybeus.*
2. *Palarus humeralis.*
3. *Helioryctes melanopyrus.*
4. *Crabro* (*Dasyproctus*) *fraternus.*
5. *Crabro* (*Podagritus*) *Gayi.*
6. Wing of *Larra.*

Fig.
7. Wing of *Oxybelus.*
8. Wing of *Nysson.*
9. Wing of *Gorytes.*
10. Wing of *Harpactus.*
11. Wing of *Alyson.*
12. Wing of *Mellinus.*

PLATE X.

1. *Stigmus pendulus.*
2. *Psen ater.*
3. *Cerceris orientalis.*
4. *Cerceris* (*Trachypus*) *binodis.*
5. *Crabro cribrarius.*
6. Wing of *Cemonus.*
7. Wing of *Philanthus.*
8. Wing of *Ceratophorus.*
9. Wing of *Pemphredon*
10. Wing of *Diodontus.*
11. Wing of *Passalœcus.*

PLATE XI.

1. *Philanthus* (*Trachypus*) *apicalis.*
2. *Philanthus diadema.*
3. *Gorytes Natalensis.*
4. *Nitela Spinolæ.*
5. Wing of *Ceratophorus.*
6. Wing of *Cemonus.*
7. Anterior leg of *Crabro vexillatus* ♂.
8. Anterior leg of *Crabro palmipes* ♂.
9. Anterior leg of *Crabro scutatus* ♂.
10. Anterior leg of *Crabro cetratus* ♂.
11. Antennæ of *Crabro cribrarius* ♂.
12. Anterior tarsus of *Crabro.*

List of the typical specimens of Fossorial Hymenoptera in the Museum at Kiel, described by Fabricius in the *Systema Piezatorum*, referred by Professor Behn to the genera in which they appear in this Catalogue.

Ceropales spinosa, *Syst. Piez.*	p. 186. 5.	Nysson spinosus.
—— ruficollis, ,, ,,	186. 6.	Harpactus lævis (var.).
Pompilus assimilis, ,, ,,	189. 9.	Larra fasciata.
—— labiatus, ,, ,,	191. 16.	Tachytes labiatus.
—— teutonus, ,, ,,	194. 34.	Larrada anathema.
—— maculatus, ,, ,,	196. 42.	Nysson maculatus.
—— pictus, ,, ,,	196. 43.	Dinetus pictus ♂.
—— guttatus, ,, ,,	196. 44.	—— pictus ♀.
—— bicolor, ,, ,,	198. 56.	Tachytes bicolor.
Pelopœus abbreviatus ,, ,,	204. 8.	Ammophila abbreviata.
Sphex sabulosa, ,, ,,	205. 1.	—— sabulosa.
—— clavus, ,, ,,	206. 3.	—— holosericea.
Pepsis arenaria, ,, ,,	207. 1.	—— viatica.
—— lutaria, ,, ,,	208. 2.	—— lutaria.
—— crucis, ,, ,,	209. 4.	Sphex crucis.
—— fervens, ,, ,,	209. 6.	Parasphex fervens.
—— luteipennis, ,, ,,	210. 10.	Podium luteipennis.
—— flavipennis, ,, ,,	210. 13.	Sphex flavipennis.
—— maxillosa, ,, ,,	213. 27.	—— flavipennis.
—— violacea, ,, ,,	211. 16.	Pelopœus violaceus.
—— cyanea, ,, ,,	211. 17.	—— cyaneus.
—— femorata, ,, ,,	212. 20.	—— femoratus.
Chlorion lobatum, ,, ,,	217. 1.	Chlorion lobatum.
—— ciliatum, ,, ,,	218. 2.	Pronæus ciliatus.
—— ichneumoneum, ,, ,,	219. 6.	Sphex ichneumonea.
—— compressum, ,, ,,	219. 7.	Ampulex compressum.
Bembex maculata, ,, ,,	222. 2.	Monedula maculata.
—— signata, ,, ,,	223. 3.	—— signata.
—— punctata, ,, ,,	223. 4.	—— punctata.
—— rostrata, ,, ,,	223. 5.	Bembex rostrata.
—— fasciata, ,, ,,	224. 6.	—— fasciata.
—— olivacea, ,, ,,	224. 7.	—— olivacea.
—— glauca, ,, ,,	224. 8.	—— glauca.
—— lunata, ,, ,,	224. 10.	—— lunata.
—— repanda, ,, ,,	225. 12.	—— repanda.
—— americana, ,, ,,	225. 13.	—— americana.
—— spinosa, ,, ,,	225. 14.	Monedula spinosa.
—— continua, ,, ,,	225. 15.	—— continua.
—— striata, ,, ,,	226. 17.	—— striata.
—— integra, ,, ,,	226. 18.	Larra integra.
—— 6-fasciata, ,, ,,	226. 20.	—— sexfasciata.

Liris interrupta,	*Syst. Piez.*	p.	230. 8.	Palarus interruptus.
Mellinus mystaceus,	„	„	297. 1.	Gorytes mystaceus ♂.
—— campestris,	„	„	299. 9.	—— mystaceus ♀.
—— ruficornis,	„	„	298. 3.	Mellinus sabulosus.
—— 4-fasciatus,	„	„	298. 5.	Gorytes quadrifasciatus.
—— tristrigatus,	„	„	299. 7.	—— tristrigatus.
—— tricinctus,	„	„	299. 8.	Nysson spinosus.
—— 5-cinctus,	„	„	299. 11.	Gorytes quinquecinctus.
—— fulvicornis,	„	„	299. 13.	Mellinus sabulosus.
Philanthus auritus,	„	„	301. 2.	Cerceris arenaria.
—— rufipes,	„	„	303. 8.	—— tuberculata.
—— arenarius,	„	„	303. 9.	—— arenaria.
—— labiatus,	„	„	303. 10.	—— labiata.
—— ornatus,	„	„	304. 11.	—— ornata.
—— flavipes,	„	„	304. 13.	Palarus flavipes.
—— 5-cinctus,	„	„	304. 15.	Cerceris arenaria.
—— 4-fasciatus,	„	„	305. 16.	—— arenaria.
—— interstinctus,	„	„	306. 21.	—— interstincta.
Crabro spinosus,	„	„	307. 1.	Nysson spinosus.
—— fossorius,	„	„	308. 3.	Crabro fossorius.
—— cephalotes,	„	„	308. 5.	—— cephalotes.
—— lapidarius,	„	„	309. 6.	—— vexillatus.
—— nitidulus,	„	„	309. 7.	Tachytes nitidula.
—— philanthoides,	„	„	309. 11.	Crabro vexillatus.
—— sinuatus,	„	„	310. 12.	—— cephalotes.
—— peltatus,	„	„	311. 15.	—— patellatus.
—— cribrarius,	„	„	311. 16.	—— cribrarius.
—— pterotus,	„	„	311. 17.	—— pterotus.
—— clypeatus,	„	„	312. 18.	—— vexillatus.
—— scutatus,	„	„	312. 19.	—— scutatus.
—— mediatus,	„	„	312. 20.	—— subpunctatus.
—— vagus,	„	„	313. 22.	—— vagus.
—— tridens,	„	„	313. 23.	Larra tridens.
—— dimidiatus,	„	„	313. 24.	Crabro dimidiatus.
—— tricinctus,	„	„	313. 25.	Gorytes tricinctus.
Pemphredon leucostoma,	„		314. 1.	Crabro leucostoma.
—— lugubris,	„	„	315. 2.	Pemphredon lugubris.
—— crassipes,	„	„	315. 3.	Crabro clavipes.
—— tibialis,	„	„	315. 4.	—— tibialis.
—— albilabris,	„	„	316. 8.	—— albilabris.
—— minutus,	„	„	316. 9.	Diodontus minutus.
Oxybelus uniglumis,	„	„	316. 2.	Oxybelus uniglumis.
—— lineatus,	„	„	317. 3.	—— lineatus.
—— mucronatus,	„	„	318. 5.	—— mucronatus.

List of the typical specimens of Fossorial Hymenoptera in the Banksian Collection, preserved in the Museum of the Linnæan Society of London, described by Fabricius in the *Systema Piezatorum*; referred to the genera in which they appear in this Catalogue, with the size of the typical specimens in twelfths of an inch.

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